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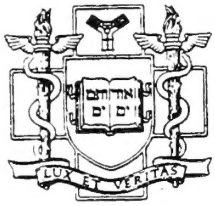

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Dissertations

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Contents.

I. Garwood Hervey Atwood, B.A.
On the advantages of general science to the Physician.

II. Nehemiah Banks,
On Rubeola.

III. Edwin Curtiss Bidwell, B.A. Will. Coll.
On the Pathology of Drunkenness.

IV. Nathan Taylor Bliven,
On the importance of correct Diagnosis.

V. Abner Hartwell Brown, M.A. Dart. Coll.
The Valedictory Address.

VI. Henry Lewellen Wakeman Burritt,
On animal heat, digestion and motion—not chemical action.

VII. Henry Eugene Dibble,
On general Diagnosis.

VIII. Christopher Smith Fenner,
On Lithotrity.

IX. Gershom Clark Hyde Gilbert, B. A.
On Chorea.

X. Norman Knox Johnson,
On Scarlatina.

XI. William Frederick Lacey,
On Cynanche Trachealis.

XII. Austin Lord,
On the true Philosophy of Medicine.

XIII. William Strickler Mc Corkle,
On Variola.

XIV. George Anson Moody,
On Iodine.

XV. Francis Allyn Olmsted, M. A.
On the use of Narcotics in the treatment of Insanity.

XVI. Sidney Williams Rockwell,
On the present Phases of Empiricism.

XVII. David Atwater Tyler,

On Helianthemum Corymbosum et Canadense.

XVIII. Charles Lewis Uhlhorn,

On Hydrocele.

XIX. Lucius Clark Walton,

On Congestive Bilious Fever.

XX. John Freme Wells,

On Typhous Fever.

XXI. William Joseph Whiting,

On Phymosis.

XXII. William Woodbridge, B.A.

On Moral Influence in the treatment of disease.

XXIII. Asa Curtis Woodward,

On Scarlatina.

I.

Dissertation

on

The advantages of general science to the Physician.

By

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of Woodbury, Connecticut.
Candidate for the Degree of Doctor in Medicine.

Those things most engage the attention which appeal to man as an animal, rather than intellectual being. He first seeks to gratify those faculties of sense which he finds implanted in him, but his Creator has so formed him that from the commencement to the close of his existence mental exertion becomes indispensably necessary to the accomplishment of this object. He finds himself in need of raiment to protect his body from the inclemencies of the weather a habitation to shelter him from the storm, & afford him a place where he can refresh & rest those powers, which are wearied by exertion. "Pleasures are ever in our hands or eyes" & though so many different ways are adopted, all are in pursuit of the same object happiness. But however ardent we may be in this pursuit, we are liable to be cut off in the midst of our mercenary property. With disease all must sooner or later become experimentally acquainted. A subject may be of importance to all & yet a few pay practical attention to it. Thus we see they have not the time or inclination with. A disease is a topic in which all are interested. Regard for self has properly great control

& when we reflect that the sentence of death pronounced by our Creator was universal in its application, we have a sufficient reason why in all ages of the world the preservation of life [illegible] should be regarded as [illegible] in a state of nature has more regard for his life than he does for his wife, though his estimation of the former will lead him to be tenacious of the latter. The mental faculties also can more [illegible] the present than for the future.

"To be [illegible] to his natural desire" & while [illegible] pertains to footsteps is well in observing this physician renders effectual means of health & [illegible]. There is something forgivable in disease even to the savage when he beholds the lifeless clay before him, which rouses all the feelings of his nature & though he learns the conviction that death is the common lot of all, yet he wishes to keep the dreaded hour as far away as possible. He also does something to avert the progress of disease, if not for the gratification of [illegible] "to make his own happiness." How much more then should the educated man [illegible] effect in his power to [illegible] & the effect of the "lurking principle of death" & prolong existence to a good old age.

"Still tired nature sleeps & life grows pleasant as of old."

It is thought by many that the sacred departments of science have no connection with the practice of medicine, in fact they look upon anything more than a little affinity to disease in diagnosis or treatment, as of no importance. Such kind of minds have an feeling of ignorance of the nature object or importance of the profession. Were the studies of the sciences of no use but as a means of mental developement, this would be a sufficient argument for their cultivation. It is well known that by practice we can greatly increase the power of muscular power, & combined with another increase in product, we are enabled to elevate [illegible] which at first it would have been impossible to have moved, & in the same practice we can acquire a degree of muscular more=

ments which exceeds all expectation. The several powers of the mind in like manner improve by cultivation. The dull Mathematician at length becomes able to go through with calculations which at first appeared inexplicable, with astonishing rapidity. The linguist by means of his Grammar & lexicon becomes able to decipher what appear'd as unmeaning as did of old the hand writing on the wall. In fine the mind is fashioned, either limited or expanded according to the nature of the subjects about which it is constantly engaged. If then a person studies deeply & endeavors to reason correctly on every subject which comes before him he gets into a correct way of thinking so that he easily views a subject in all its bearings as soon as it is presented, while he who has no definite control over his mind is liable to reason from false principles or make false deductions from correct principles. It may seem to some almost impossible that Mathematics should have any connexion with the practice of medicine but does the Physician have nothing to do with Multiplication, Division & means? Is not the whole bearing of prescribing a series of calculations? He must take into consideration all the circumstances of the case, such as age, sex, temperament, the nature of the disease, its cause &c in making out every prescription. Mathematics is not the dry study of the closet, & confined to College text-books, but goes forth with the student, man, to crown his efforts with success. We are little conscious of the calculations we are continually call'd upon to perform, which we designate reasoning, but what is this but another name for the application of the science of numbers to the common affairs of life? But what can we do in Chemistry without a knowledge of Mathematics when we are form of chrystalizing matter is governed by the definite laws of Geometry? We cannot correctly describe or become acquainted with the appearance of the Salts without a knowledge of Trigonometry. It is true we may pulverize & combine these articles without this information but we are no more conscious of the changes we are effecting, than the mill stones that grind what is placed between them.

Besides the elements all combine with each other in definite proportions, which places Chemistry upon a mathematic basis, how then without a knowledge of equivalents can we combine articles so as to obtain their united power or in what way shall we ascertain the name of the compound we are employing? Eg, We find in our books a compound call'd the Chloride of Soda but the name does not give us the proportion of the combining equivalents. Again we have a preparation call'd the white precipitate but what idea of its chemical composition does this name give us except that certain articles are mingled & the precipitate is white? Now if Chemistry is good for anything why is it not pursued as an exact Science? Why is there an attempt at order which "leads to bewilder & dazzle to blind". None but the ignorant can cavil about the utility of the Science, but if they not yet reach that degree of precision which philosophy demands. If men would only reason correctly on facts & abide by the rules laid down, there is no need of so much confusion in this department of Science. Again how can we explain the direction or calculate the force of muscular action without a knowledge of the composition & resolution of forces, which is so important to enable the Surgeon to overcome their resistance in the reduction of dislocations & the application of proper dressings in fracture to prevent displacement. The educated Physician is thus continually turning his information to a practical account. If Calomel & lime water are mingled, Chemistry tells him the changes which take place & not how many have employed the "black wash" without any correct idea of its chemical composition? But such the Practitioner not is the use of your Science, if men have never fully employed the preparation without a knowledge of the action of the compounds upon each other? Answer 1st. If they have done it, we should no more praise or imitate them if they had the means of information within their power, than we would extol a

man who should walk with his eyes closed & not chance to stumble. They know no more what they are about, than those people who apply their unguents to the instrument by which the wound was inflicted. Science is nothing but truth, & it can never fail to lead men to important practical results. How important then is it that students of medicine should fully appreciate the nature of their pursuits & the unlimited progress which may yet be made in the discovery of truth. But as long as they imagine that things are to investigate for them, or that anything practice will be successful in their hands there is an end to all individual mental exertion. Such persons should remember that in order to obey the letter, they remove the spirit of those who are now where they have always been. They need that reason & judgment to enable them to see things as they are & deduce proper inferences from them, which cannot there to be successful where experience they attempt to imitate. It is necessary therefore to commence the study of M. equipped with the whole panoply of science, if we desire as we advance, to see every thing clearly. 2dly I deny that any correct use has been made of o- articles whose powers & effects are not well understood. Almost every individual has some knowledge of the operative of certain articles of the M.M. either he has felt their effect, in his own person, or witness their operation on others, or else learnt their powers, from some educated Physician. But the common people have not sufficient information to turn these observations to much practical account. They who employ such an article because a friend has been cured by it & those who pursue the same course of treatment for the various manifestations of disease, act on the same principle, as those who use an article without a knowledge of its composition. It may cannot be said to have experience who does not build on a scientific basis, for what is the use of seeing, unless he can classify & appreciate facts as they appear before him?

It is in this the great difference between the educated man & the savage? The one sees cause & effect, the other explains the relation between them & deduces important principles. What, is it then a matter of opinion to exist among us, but that they have been discovered & defined in some causes which have been overlook? But when we recollect that disease never puts on precisely the same form in two cases, that there is great difference in strength of constitution & susceptibility to medicine, & that the mode of action is continually changing, we have sufficient reason for the uncertainty & contradictory of doctrines. Again a knowledge of the constitution of the atm & the changes which take place in the atmosphere during respiration is of great importance to the physician, to guide him in his practice. In the low state of certain diseases, where the livid tinge, evinces imperfect aeration of the blood, if there are any articles which tend directly to obviate this morbid condition, it is important that he should make himself familiar with their effects & the best mode of administration. There are also many impurities with which he ought to be acquainted, that plants used the carbonic of the atm & give out oxygen, & plants containing a volatile oil give out so much aroma as to make the air unfit for respiration. Science also informs him of the benefit of ventilation in warm weather, both to carry off the morbid heat of the patient & furnish the uncontaminated atmos for respiration. Besides the exhalations from marshes or the decaying animal or vegetable matter may fill the atmos with so much impurity as to prove the predisposing or exciting C of disease & even change the character of epidemics in particular localities. It teaches also the nature of the miasms which may be classed as 8 mem. indistinctly, both under the name of "Damps" & produced by the combustion of Charcoal in confined apartments. But Science not only informs us of the character of the enemy against which we must contend, it also

furnishes us with the means most successful in overcoming him. Charcoal absorbs 35 times its volume of carbonic acid, and on this property of absorbing gases depends its use in deodorizing and as an article of food in factid cases. Thus by filtering thro it foul & impure water, all its impurities are removed & it becomes fit for any use. Such facts as these explained are the well known principles of science, so extensive in their application & interesting in their results, ought to be strongly impressed on the mind of every Physician. In fine, where shall the man who desires to be useful in his profession find an end to his labors but in the grave, for knowledge is infinite & the farther we advance the more our eyes are opened to the limited nature of our information & the importance of fresh acquisitions in all the departments of human knowledge.

"A little learning is a dangerous thing
Drink deep or taste not the Pierian spring
There shallow drafts intoxicate the brain
& drinking largely sobers us again
And more advance behold with strange surprise
New distant scenes of endless science rise."

He who has informed himself on all the branches of & cultivated rigid modes of thinking, views things in their true light while the ignorant man walks unmov amidst the wonders of nature without ever thinking of removing the veil from her face & beholding things in their true character. To the mind which loves to investigate principles & dwell upon the relations of cause & effect there is nothing trifling or unimportant in nature. The soap bubble from its simplicity & beauty is interesting as well as because its color is explain on an important principle in Optics. The fall of an apple a thing continually happening before the eyes of mankind without exciting a single thought, excites the admiration of Newton & leads to a contemplation of the laws which hold the planets in their places, & govern the motions of the minutest particles of matter as well as the movements of the vast system. One individual is satisfied with spending his life among the mus-

interesting specimens of minerals & flowers without spending one solitary thought upon them, while another reads in the very soil on which he treads the history of his planet ages before man became [illegible]. Such men not only enjoy the highest degree of pleasure, but they are less subject to the unnatural & dependence often manifested by the ignorant. They have the great book of nature ever open before them & learn to trust with calm submission to her laws which have a certainty about their operation [illegible] to be unruffled the mind & render it less accessible to selfish repining, & turbulent emotions. The ignorant man imagines every [illegible] the student of nature sees that "All are but parts of one stupendous whole" & considers himself but a little "[illegible]" instead of complaining like the [illegible] satisfaction in beholding the regular [illegible] & if there are [illegible] he is satisfied that [illegible] "Nature is [illegible] the meaning of well designed [illegible] one who "finds tongues in trees, books in the running brooks [illegible]" & accustomed to trace general laws he goes forth contin[illegible] into new fields of [illegible] objects of admiration, rather than [illegible] inexperienced eye beholds nothing, or confusion. But let it not be said that the [illegible] of the Mathematician, investigating [illegible] experiments [illegible] & electricity, are of [illegible] operated on by [illegible] [illegible] & the mental [illegible] [illegible] with them & the contempt [illegible] might well be induced by reason of the assaults that appeal against the [illegible] proceeding from [illegible] of the [illegible], & the [illegible] of which men [illegible] difficulty, or trouble, for want of some [illegible] to engage their attention. The man rich [illegible] & reflection [illegible] a world [illegible] & his [illegible] can never feel for want of [illegible] resources

to induce him to prosecute his investigations, but the ignorant & more passing no idea of the importance & consequence of the objects which Herschel's unwearied assiduity, the grandeur & immensity of his stellar worlds. The people of our country do not attach upon the accumulation of wealth, & no investigation into Nature's laws, & the of the abstract sciences will be encouraged unless they develop some results or admit of immediate practical application. They do not expect that they have come into the possession of one of the most important & [illegible] discoveries, & that some time elapse before they will have to account in the data. When the first sketch & the hint of the pendulum from the instrument & pendant lamps in the cathedral [illegible] in Pisa & that in this manner the world would profit a true attendant of mankind. Again what would appear more unprofitable than the [illegible] of the harmony of the spheres or [illegible] in their investigation of the properties of Conic Sections & yet these are the means by which a knowledge of the physical unity of the planets, & the grand laws of [illegible] which are of such incalculable benefit to mankind, have been demonstrated. Science has made the "spangled heavens" an unerring chart for the Mariner, & the alternations of life & death, wealth & ruin, are daily & hourly out with perfect confidence on those mere abstract computations, which might almost seem to have been devised on purpose to show how circumscribed the extent of speculative refinement & practical utility can be brought to approximate. The case of Capt. B is strikingly illustrative of this point. "He sailed from San Blas on the west coast of Mexico & after a voyage of 8000 m, occupying 84 d. arrived off Rio de Janeiro having on this time, passed round the Pacific, doubled Cape Horn & sailed the South Atlantic without making any land, or even meeting a single sail with the exception of an American whaler off Cape H. When within a few days sail of Rio, by lunar observations he determined the precise time of the ship's arrival to it as a certain in a few days, & proceeded

ascertain this within from 5-10 miles he says "We steer towards Rio de Janeiro for some days after taking the lunar & having arrived within 15-20 m of the coast & close to at 4 in the morning till the day should break, & then bore up, for although it was hazy we could see before us at 2 miles. About 8, which it became more, & a dist. not to be to stand in further & may at bringing the ship to the wind again & allowing the people to breakfast, when it suddenly clear'd, & we had the satisfaction of seeing the great Sugar Loaf Rock, which stands on one side of the harbour mouth, to our right hand. Thus we had not to alter our course above a point & we made so, & the entire Rio. This was the first land we had seen for 3 mo. & hence at back-ward, & found, a immediate result of these facts as there can not fail to interest & will furnish a striking illustration of the certainty of the science. A distinguished writer remarks between the physical & the duty of life there exists a constant & intimate connexion, & consequence from a cause in the one will be reciprocated in the other. On the other hand we not in some measure, & more entirely dependent on those very powers & qualities of the material world which it is the object of philosophic inquiry to investigate & explain, & accordingly abundant examples might be cited of cases where the application of philosophic truth, or even ordinary knowledge, has led to the discovery of natural agents of the highest importance in physics. Thus a soap-manufacturer remarked that the residuum of his lye, when exhausted of the alkali for which he employs it produces a corrosive gas, which corrodes the glass & ancient. Be fact, it led to the discovery of the chemical analysis & the result of the discovery of one of the most important, & a peculiar one, iodine Iodine. The properties of this being attended, are found to occur most appositely in [illegible]

[illegible] promised [illegible] a marked influence over the whole body of that science. [illegible] the origin of this new substance is traced to the sea-plants from whose ashes the principal ingredient of soap is obtained, & ultimately to the sea-water itself. It is thence hunted through nature discov'd in salt mines & springs & pursued into all bodies which have a marine origin, among the rest into sponge. Dr C, [illegible] to [illegible] a [illegible] remedy for the cure of one of the most grievous & unsightly disorders to which our [illegible] subject the goitre which [illegible] [illegible] [illegible] [illegible] of [illegible] experience. He tries the effect of iodine in this disease & finds it to act with the utmost promptitude & success in a cure for this deformity. It is thus that any accession to our knowledge of nature is sure, sooner or later, to make itself felt in some practical application & that a benefit conferred on science by the casual observation or shrewd remark of [illegible] an unscientific or illiterate person infallibly repays itself [illegible] though often in a way that could never have been at first contemplated. Had an ordinary mind discover'd that flame will not pass thro' a fine tube it would have pass'd unregarded but in D's mind [illegible] & reflection immediately [illegible] it resulted in the invention of the safety lamp by means of which those fatal explosions are prevented which have destroyed the lives of so many miners. Thus by the application of science the [illegible] is protected from an atmosphere more explosive than gunpowder [illegible] [illegible] [illegible] [illegible] at [illegible] [illegible]. Again those persons employ'd in grinding needles were exposed to so many imperceptible particles of steel, that they were carried off by pulmonary diseases before the age of 40, [illegible] of fine gauze were employ'd to prevent their inhalation. But these attempts were all useless to obstruct a dust so fine & penetrating till some reflecting person call'd in the magic power of the magnet. Magnetic masks were constructed & worn & by them the air was rigidly [illegible] in its passage through them, & each [illegible] atom arrested & removed.

Even in [illegible] the flame of an [illegible] upon the [illegible] of lime causes a light of intense brightness which may be seen at a great distance by the benighted mariner & warn him of the rocks & shoals which forbid his approach. & Davy profit[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] spirit of philosophy begins to be cultivated in the investigation of the cause & treatment of diseases, & the scurvy which formerly destroyed the lives of so many seamen is now entirely prevented by a free use of the vegetable acids & a promiscuous diet. Again one of the most formidable scourges which ever afflicted mankind has almost ceas'd to exist in consequence of the discovery of a sure preventive, by a mixed [illegible] [illegible] principles [illegible] [illegible] utterly unmeaning & [illegible] then is the remark, that science is of no practical utility [illegible] [illegible] in the [illegible] of Physicians. Mercury is exposed to the action of Nitric a. & afterwards mingled with a solution of common salt, & we have one of the most powerful & useful compounds in the M. M. Who would imagine that Salt contains one of the most active disinfecting agents known, an element by means of which what it formerly [illegible] months in the common process of the arts in effecting is now perform'd in as many hours. So ignorant are mankind of the uses & properties of things by their appearance & [illegible] [illegible] the pursuit of science & because they cannot in every case behold the immediate result of [illegible] in the [illegible] conclude that it is all of no importance, [illegible] [illegible] [illegible]. What is it [illegible] [illegible] cultivation & the [illegible] [illegible] "knowledge is power" & [illegible] it, however much they may envy the superiority it gives its [illegible] or be unwilling to [illegible] the effort necessary

II.

Dissertation on Rubeola.

By

Nehemiah Banks,

of Hartford, Connecticut,

candidate for the Degree of Doctor in Medicine.

Rubeola, Morbilli. Measles.

By the American, English & French physicians the terms morbilli and rubeola are used synonymously, but in Germany, the technical term for measles, is morbilli, and rubeola is used to designate what is called, false or spurious measles, described by Dr Willan under roseola.

The disease in question may prevail epidemically at all seasons of the year occasionally, but they are by far the most prevalent during the middle of winter and the spring months, commonly ceasing with the return of mild and agreeable heat of summer. It is said they rarely occur sporadically. It is the opinion of some that this disease is regular in its recurrence as an epidemic & the interval is reported to be seven years, it was thought probable that it returned at this period or approximated it, some authors at the present day pass this supposition unnoticed. This is commonly considered a contagious disease, having a period of incubation varying from five to twenty days & in some cases it may exceed this,

And the common belief is, that when once induced in an individual, a specific contagion is generated which will or may produce a disease of the same character in one who has never been affected by it, provided he be exposed and the habit of constitution favor it. In some instances it appears to spread directly by contagion in other cases it is not so apparent from this cause alone.
In the most regular or perfect form of this disease, it seldom occurs more than once in the same individual, instances of a second attack, being contrary to the general character of the malady, though few cases of the like are recorded, seemingly they do not appear as often as second attacks of Scarlitina or Small pox, and indeed some persons are never affected with measles, though often exposed to contagion of this character, this variety may exist in a single family, a part of the members being affected in the usual way & others escaping with impunity, Dr Baillie has described one instance of a family susceptibility, all having the disease a second time within six mon-

-ths after the first attack except one, & in this there was an interval of twenty one years,
Children and youth are the principal subjects of this affection, the aged being but little impressible.
Children it is stated, have been born, with the eruption of measles the mothers being at the time unaffected having previously had the disease, in other instan-ces. both have had it simultaneously, according to some of the records of medicine inoculation has been practi-ced in a few instances with success, in such the erup-tion appeared about the sixth or seventh day. there is some diversity of opinion, by different writers whe-ther the disease can be communicated in this way, also in reference to its being more mild, a probable conclusion might be that it don't appear to act with any degree of certainty in producing a more mild form of morbillious fever than could have been expected from a natural attack. if there is any cert-ainty that it can be produced as a general thing by inoculation, it is not laid down as a thing of much importance if it should be omitted in future, though it may be practiced for marvelousness.

If an individual having the measles, should be inoculated for small pox, the action of it would be suspended till the first disease had run its course, then subsequently the virus of the second might assume its power and take possession of the system, to the exclusion of any other disease during its own limited time, this principle has been considered a law of nature that two diseases, as a general rule do not run their course at the same time, but there are exceptions to it, both measles and small pox have run their course simultaneously in the same individual, & the same is true of other diseases, especially some of the exanthemata, Measles is much modified by the prevailing epidemic constitutional susceptibility and the complication of other organs, the affection is generally more mild and regular during warm and equable weather, than in cold and variable seasons, A person may pass one epidemic without infection, though often exposed, yet during another he may not escape with like immunity, It is probably from some idiosyncrasy that different

grades of violence have been met with in the same family and even in the same epidemic. Some of the mild cases have appeared without the eruption but had catarrhal symptoms in other cases the eruption was present without catarrhal ~~symptom~~ fever, authors have considered both of these forms are more liable to a second attack as is the case in Scarlatina,

In general the mild and regular cases are incomparably more frequent than those of a violent or malignant character.

The invasion of an attack of measles is similar to other febrile affections having symptoms of pyrexia, which are slight tenderness and redness of the eyes, with increased secretion, copious thin secretion from the nose which is acrid some languor, chilliness alternating with transient flushes of heat, heaviness about the eyes, pain in the head, cough, thirst & heat, often during the first day or two these symptoms are slight, but sooner or later the prominent pathognomonic symptoms are developed,

and are considered as among the specific phenomena of the disease, There is commonly some peculiarity of particular symptoms in different stages, The cough is at first dry & harsh, some soreness of the throat & tightness of the chest, eyes preternaturally sensible to light & somewhat tumefied, after two or three days continuance of these symptoms the fever becomes more intense, often attended with nausea and vomiting, coma or delirium, previous to the appearance of the eruption, which is generally between the third and fifth days, but oftenest on the fourth, At first there is an irregular erythematic blush, and soon appearing in it small red spots apparently papular, pointed and hard to the touch, the eruption is interspersed in circumscribed patches with portions of natural colored skin intervening, the rash is said to be more elevated on the face than other parts of the body, the small dots are said to enlarge some from the beginning and have a crimson color,

The eruption appears first in the throat, then successively on the head, face, neck body and extremities, During the second day of the eruption, it is at its highest grade of vidence in places where it appeared first, It soon begins to disappear, the fading & subsidence of the rash goes on in the same progressive manner that it came out. gradually maturing & declining so that by the eighth day, in common cases it begins to disappear on the backs of the hands where it customarily remains the lingest, desquamation begins on the face and by the tenth or eleventh day is complete over the whole body; leaving the skin of a purplish color & a troublesome itching of the affected portions, Sometimes the fever abates with the appearance of the eruption, but it is not in accordance with the general character of the disease, the vomiting may subside but the fever is oftener increased, In favorable cases as soon as the eruption fades the fever abates & there is an evident amendment of all the symptoms; in most instances the

fever subsides entirely by the time desquamation is complete, Measles seems to be more decidedly attended by an inflammatory condition of the system than most other eruptive diseases, except cases of course are imposed by constitution season &c. or it may be of a malignant character, The inflammatory is often characterized by a frequent tense pulse. Skin dry & hot cold extremities and an exacerbation of fever every evening, in some cases the pulse is depressed, then it is not soft & compressible, which indicates its general character, the symptoms change with the character or intensity of the fever, The most important of the varieties of this disease are referable to two, viz the inflammatory & malignant, and these are founded on constitutional & epidemical influence, The inflammatory variety has been sufficiently described. It may prevail in different degrees of violence or run into the putrid form if habit & location favor it, also there may be symptoms of inflammation of some internal organ or hyperaemia,

The Malignant variety is of rare occurrence comparatively, and is often or always attended with a typhus state of the system. symptoms of great depression of the vital energies. an irritable stomach, eruption appearing reluctantly, or receeding soon after its appearance. skin pale & pulse weak & frequent. colliquative sweats hæmorrhages &c, In complicated cases there is often a superabundant secretion of viscid mucus in the bronchia, without power to expectorate, in such the sequel is to be dreaded if the habit is of a strumous character,

The sequelæ are in many cases dangerous on account of the tendency to local inflammation, Few diseases leave the system so susceptible to the injurious influences of cold during desquamation & convalescence as the present, It is very liable to develop diseases of the lymphatic system, or induce strumous ophthalmia - phthisis &c where there is a scrophulous diathesis, the bowels are left weak often, & the system open to slight impressions, inviting

disease, The general prognosis is favorable during the eruptive fever, & until the period of subsidence little uneasiness need be apprehended about the cough dyspnoea & other pneumonic symptoms, If the fever does not subside with the eruption & also the catarrhal symptoms or if either increase in violence much danger is to be feared, Sudden disappearance of the eruption before the proper time, or a livid pale surface is unfavorable in the predisposed, excessive diarrhoea with an irritable stomach is also unfavorable, as are many cases of the malignant character,

Treatment, In general the treatment for the mild and regular cases, not combined with visceral inflammation, and indeed all that is required is to keep the patient in a cool and agreeable temperature, it may be necessary to administer some mild laxative and diluent diaphoretic, use mild diet in moderate quantity and avoid exposure to cold during convalescence, In such natural performs the principal & best part, in effecting a salutary solution of the disease,

In cases of high tonic action either with or without local visceral inflammation, or in case of a depressed pulse, the antiphlogistic plan of treatment is considered best, General & local abstractions of blood, also blisters to relieve local inflammation, Nauseating & refrigerant diaphoretics are valuable adjuvants in reducing the general excitement. If bronchitis or pneumonia supervenes an antimonial emetic may be most proper in very young children, In most cases laxatives or cathartics are requisite to remove or regulate morbid secretions of the abdominal viscera, and all to be of a character & quantity proportional to the exigency of the case, Other means might be cited which are of some importance in this form as specially mucilages & anodynes to allay general & local irritation, In cases of congestion use warm bath, stimulating frictions externally, sinapisms to the extremities &c. together with moderately stimulating drinks, These are some of the common means recommended in the books, Where the eruption recedes too early the same means are used as for the congestive state,

Though a more stimulating course might be in some cases more advantageous, In short whatever organ be the seat of inflammation, adequate measures for subduing it, are proper taking into account the grade or character of the accompanying fever, independent of the morbillous affection, During convalescence many dangerous & disagreeable affections are apt to ensue more especially if the patient is exposed to cold, in such we must anticipate the tendency & use those means in our power to combat disease, Exposure to sudden variations of temperature in this stage should be avoided, choosing a medium degree of warmth or such as is agreeable to the feelings of the patient, warm apparel is also recommended as a thing not to be omitted, till recovery is complete, If the pulse remains irritated during convalescence, advantage may be gained by continuing some mild diaphoretic for a variable period according to necessity,

III.

Dissertation
on
The Pathology of Drunkenness.

By

Edwin Curtiss Bidwell, B.A. Will. Coll.
of Tyringham, Massachusetts,
Candidate for the Degree of Doctor in Medicine.

The physician whose knowledge is limited to the diagnosis and treatment of disease has but imperfectly learned his profession. Such an one, with the aids of the usual arts of his craft, may succeed in that limited sense of success which includes partial therapeusis, and the acquisition of fortune, reputation and friends; but he does not, and cannot perform the whole of the duty which he owes to society in virtue of the place he occupies.

The physician is, or ought to be the conservator of the public health. This office, reason, no less than the public sentiment, imposes upon him, and he ought to be able to meet its responsibilities. It is not sufficient that he is able to combat acute disease with a degree of success, when he has carried a patient safely through a period of illness he must not leave him for a relapse, but must be both able and willing to give directions sufficient for the preservation of health restored. More than this his patients and the community have a right to look to him for information upon everything relating to hygiene; and he is unworthy of their confidence if he give a false report to cover his ignorance, or neglect the investigation which would make him competent

to reply intelligently.

A very great responsibility attaches to him in the exercise of this function — that of preserving or destroying health which values values he must perform a responsibility certainly not less than that which pertains to the treatment of disease. It is vain for him to say that his business is with the latter only; the degree the significant letters of which he appends to his name, the opportunities of instruction which that degree implies and his supposed qualifications for the practice to which it induces him, all contribute to give authority to his opinion, and an influence, by no means inconsiderable, over the opinions and practice of others. This responsibility belongs to the profession; he who has chosen the one, cannot escape the other.

In view of this responsibility and of the preparation to meet it, every agency or influence that can by possibility affect the human constitution for evil, possesses a claim upon the attention of the physician, and an interest which will secure to it such attention from him who loves his profession, and his fellow men, whenever it is found to exist, and to act, within the sphere of his observation; and the investigation of such a subject by such a physician will be

Careful and critical in proportion to its developement and the extent of its evil tendencies.

Judged by this standard, the habitual use of intoxicating substances, especially of alcoholic beverages, would seem to be sure of becoming the subject of anxious consideration to the medical world. But this is one of those anomalous cases in which the deductions of reason do not correspond with the observations of fact. Though possessed of such sensible properties as should exclude it from a trial upon the animal frame, at least internally, and though its first effect when tried is such as to condemn it entirely, yet to the burning shame of the medical profession, it has been suffered to come into almost universal use, and to continue so for a long period of time. Shameful it is too, that when at last, a few years ago, the true nature and operation of the poison which so long deceived the world, began to be more fully investigated, understood and taught, the profession to whom this work particularly belonged, was so tardy in entering upon it; that in the origin and progress of the reform now so rapidly advancing, and so eminently happy in all its results — physical, social and moral — so few of its members have engaged hear-

bly and efficiently; and that some with a strange and inexcusable deficiency either of knowledge or of common humanity have even opposed this reform.

Though diminished in these latter days, the evil is not eradicated; still the poison holds a place in the use and favor of a deceived world, and still those who are more responsible for it than any other class, not excepting the professed teachers of the people, too generally neglect either to learn its true character, or knowing it, to exert, by a proper use of the knowledge, the reformative influence which it is unquestionably their duty, and in their power, to exert.

These — the duty which I assert, and the great neglect of it — are my reasons for choosing this subject, and for choosing to discuss its physiological, rather than its remedial effects.

It is a consideration of primary importance, that alcohol is never digested; no portion of it ever serves the purpose of nutrition; it is not capable of assimilation for it lacks an essential element. When received into the stomach in a very dilute form, it is rapidly absorbed.

When highly concentrated it is longer delayed in the stomach, exciting upon the tender lining membrane of that organ a local effect, similar to its effect upon the external surface when applied there, which is then called rubefacient. It is an active irritant, exciting increased vascular action of the part, and a degree, or beginning of inflammation. By its strong affinity for water, it abstracts it from the contents, and perhaps also from the coats of the stomach; thus instead of relieving thirst, producing it, as such drinks always do. This semi-chemical attraction for water continues to operate till it is sufficiently dilute to be absorbed, nor is it absorbed till thus dilute; hence the observed fact that the stronger liquors often produce less speedy intoxication than some that are weaker, while the local effect, manifested in a certain derangement of the the digestive function, is greater.

The absorption of alcohol is not effected by the chyliferous vessels, or lacteals, but is of the kind usually called accidental or venous absorption. That it actually takes place is evident from the appearance of the characteristic odor in the breath expired from the lungs of the drinker; it is said also to have been detected in the other

secretions of the body, and certainly it has been found in the blood itself, and effused into the ventricles of the brain. The same circumstances prove that it is absorbed unchanged, that it contributes no element to the proper constitution of the vital fluid, but merely circulates with it in a condition of mechanical mixture. With a subtlety worthy of that foe of mankind, whom name Othello's lieutenant would have it called by,* and of whom it is no unapt representative, it insinuates itself even into the current of life, making it the vehicle upon which it is borne upon its destructive way to penetrate every organ and pervade every tissue.

The effect of alcohol upon the nervous system and through it upon the entire organism is twofold — stimulant and contra-stimulant or sedative, with a modification peculiar to itself which cannot be expressed in the language of classification. These two effects are distinct and even of an opposing nature, but they are nevertheless both legitimate. Both result, invariably, from the use of the article though their comparative development depends much upon circumstances. They are always

* O thou invisible spirit of wine, if thou hast no other name to call thee by, let us call thee — devil. Cassius in Othello.

developed in the same order of succession, from which circumstance probably has arisen the very prevalent error that they hold to each other the relation of cause and effect. No such relation exists; indeed the coexistence, in the same article of the properties which produce them is accidental, not necessary; and the one is secondary to, or a sequence of, the other only in point of time.

The phenomena of the intoxication which it produces — the unwonted vivacity and increased energy of the intellect or the passions, and of action which characterize the first stage, the mental, sensorial, and locomotive irregularities that succeed; and finally the great prostration so like to apoplexy that the diagnosis by symptoms is impossible; are due to the successive development of these two effects and in part to their combination the latter gradually supervening upon the former.

In like manner other functions than those of relation indeed most of the functions of the body are deranged, first excited to increased action, and afterwards depressed.

At first the phenomena are those of a true inflammatory fever. The action of the heart and arteries is increased in rapidity and force; the quantity of air consumed

in the lungs is increased — as is established by accurate experiment — to meet the increased demand of the hastening blood. At the same time as a part of the same series of phenomena the action of the capillaries, or the supply and waste, at least the latter, is increased also. The minutest quantity of detritus, — the result of this increased action — very soon makes its appearance in the urinary secretion. The increase of urine which is very marked, is not caused by the addition to it of the alcohol itself, for very little or none of it ever appears there; nor if I mistake not, is this secretion in these cases a more watery fluid than usual but proper urine containing a full proportion of its peculiar nitrogenized principle, the result of the disorganization of the organic tissues. Hence it is that drinkers of intoxicating liquors always lose flesh which under their influence; true flesh — muscular fibre — I mean; for they may grow fat, but the increase is only fat; as the play has it, "an increasing belly a decreasing leg." The deposition of fat in these cases is as truly a morbid result, as is the muscular diminution.

As an incidental phenomenon of this stage of intoxication, there is an increase of the animal heat; but is only a result of the stimulant operation, promoting the oxygenation

of the tissues, and not by any addition to the proper material of calorification.* No addition of this kind is necessary to account for the result, the increase of consumption of the material previously in the system being sufficient. Besides which I think it safe to assert that nothing is employed in the nutrition of animals, either to be assimilated to their tissues or burned to sustain their heat, that is not the product of a vital process, either vegetable or animal. Though all our elements are derived originally from the mineral kingdom, as they return finally ultimately, they are not in that condition adapted to our use; they must first be assimilated by the vegetable organism, to form certain combinations, which are originally produced only in vegetables — subsequently reproduced in animals — which alone are fit for us. These combinations, the products of vegetable vitality, sustain the same relation to animals, that the ultimate elements sustain to vegetables themselves; and hence, to express at the same time the analogy and the difference they are

* I know that in this I differ from the highest authority, and from an honored associate in this institution, nor do I know of any authority to quote in support of my view: wherefore I hold myself excusable in giving the reasons of my opinion somewhat at length.

by physiologists termed proximate elements. The substances used as food whether animal or vegetable, are valuable as such only as they contain these proximate elements. The vegetable kingdom, in this matter of nutrition, as in the classification of natural historians, may be considered as standing between the other two; and all minerals that become parts of the animal frame, even those that have the most apparent mineral constitution, as the material of the bones, must first pass through this medium.

Alcohol is not one of these proximate principles, nor does it contain any of them. It is not the result of any vital process, the only mode in which it can be formed being the first step of the transformation of an organic product back to its original elements. In all cases of the decomposition of organic substances, when removed from the influence of vitality, the substances produced by the recomposition of their elements which always takes place, are more simple in their chemical constitution, and more stable and such as resist entirely the action of the vital forces. If they are any of them decomposed in the animal system, it is by the play of affinities quite independent and subversive of vitality. Such is the chemical reaction of alco-

hol, as far as it has any, in raising the temperature therefore it fans but adds no fuel, to the flame.

After this stage of stimulation has existed for a longer or shorter period, variable as I have said, according to circumstances, another condition of things supervenes. The man is now entirely changed in his appearance; in action, air and attitude he is the very antipode of what he was. The beaming eye becomes lustreless; the countenance, but now full of expression and unwonted fire, soulless, dead; the intellect excited to exhibit a brilliancy not truly its own, is clouded; the scintillations of wit, or bursts of eloquence, are succeeded by rude and pointless ribaldry; the indignant scorn of unworthy deeds, or the passion roused by slight offence, give place to dull indifference; and the dignity, pride and self-complacency, to shame diffidence and self loathing. With the oppression of the nervous function, of which these are the most obvious symptoms and results, all the animal functions seem to sympathize. The circulating system labors as it were with a heavy load; the lungs perform their office but imperfectly, and the blood goes on but partially arterialized, and of course unfit for the changes which it is designed to undergo in itself, and

to effect in the tissues. As all parts of the system are dependent upon this fluid for the supply which they constantly require, no part can escape when it is deteriorated.

The circumstances which determine the predominance of the one or other of these effects are chiefly, the quantity taken, and the external temperature. In the first of these particulars the operation of this article is exactly analogous to that of opium, of which as is perfectly well understood, small doses excite both the physical and mental functions to increased action, while larger doses interrupt the same actions, and if very large, speedily bring the whole machinery to a stop.

Cold, in the language of natural philosophy, is a negative quality, being but the absence or diminution of heat, but in medicine it is a positive agent, and one of great power. It is a sedative and as such, has a decided effect when its operation is simultaneous with that of alcohol. It abbreviates the stage of stimulation, and hastens on the accession, increases the amount of the subsequent depression. Hence the great mistake of those who suppose that spirituous drinks enable the drinker the better to endure the inclemencies of winter. Female observers have learned that those

who drink most freely to guard against the effects of cold, have sooner yielded to him put upon the trial. And thousands who through this mistake have provided themselves abundantly with this prophylactic when about to undergo long exposure to low degrees of temperature, have therewith clogged the vital action which should have sustained the vital warmth. They weaken the resistance which nature makes, and which uninterrupted would rarely prove insufficient, & thus enable the enemy which they feared the sooner and more surely to seize upon them. They fall, but they are not so much the victims of the cold as of their own ignorance or appetite. Under any ordinary circumstances whatever the inclemency of the weather, none but the drunken perish by cold, and they frequently.[x]

On the other hand, when not modified by a low degree of temperature the stimulant effect of alcohol is more fully developed. Then it is, when the cold blood needs no impetus to make it course more swiftly through the veins this article comes in to urge it on; when no artificial heat is needed. This seems to furnish another reason for supposing that alcohol contributes to the generation of animal heat, by its stimulation only & not by its own combustion.

it hastens the fire that consumes, while it warms the frame. There can be no surer way to generate disease. It is a common remark and made sometimes in defence of the use of wine that in the vine growing countries there are comparatively few besotted drunkards; the reason is, not that the fermented wine lacks the besotting property possessed by distilled liquors but that before they can take enough to produce in their circumstances the latter stage of drunkenness as we see it in higher latitudes, the system by excessive stimulation will have passed into such a condition of high excitement as will be more likely to terminate in a raging fever, than as here, in a few hours of miserable depression or sleep, with a gradual return to the condition of health. 19

The same circumstances also modify the more permanent effects of the habitual use of intoxicating liquors. Thus we find that in warm climates & miasmatic districts no viscera are so much affected as the liver and spleen, while in colder countries we look for more obvious derangement of the lungs, the liver being usually second. This will account for the varying and sometimes conflicting testimony of different authors.

Other circumstances also, as the diathesis of individuals, of times and of places, have an influence in determining the deleterious action of spirituous liquors to particular parts. In the summation we find that more or less frequently they produce disease of every part. Alcohol seems to be the universal morbific cause, predisposing and exciting in different cases, ready to unite with any other cause that promises to produce disease, of whatever general kind, or of what organ. Certainly it has in numberless instances been connected with the production of acute disease of all the viscera and all the membranes of all the cavities; and there can scarcely be a doubt that, used extensively as it has been, it has been more active than all other causes together, in destroying the tone and vigor of the whole system, & so fitting it for the accession of any disease, acute, or chronic, to which the subject might be prone other causes predisposed or exposed; and in securing for such disease when developed, a rapid and fatal progress. Whatever the disease which arises from this cause — and their name is Legion — it is very apt to resist remedial treatment, and to proceed — in spite of medical skill, either to speedy

death, or a lingering life of suffering worse than death. Especially, is it concerned in producing that cachectic condition of the body in which diseases assume the erysipelatic form. Fevers in constitutions thus affected are of a typhoid or putrid grade and are almost certainly fatal. Slight wounds are followed by a general disturbance entirely out of proportion to themselves, or to any obvious accessory causes, a result that upon a healthy person would attract no notice at all, is as likely as not to cause speedy and miserable death. Indolent and phagedenic ulcers, carbuncles, erysipelas, and obstinate cutaneous affections are frequent attendants upon this state. Dropsy in its various forms and with its afflicting concomitants, is often a sequel of intemperance, and it may be questioned whether gout or diabetes mellitus, two of the most distressing of chronic diseases, ever occur without the co-operation of this cause.

The Asiatic or Spasmodic Cholera which visited this country a little more than ten years ago, has been appropriately styled the "Drunkard's Cholera" for its ravages were almost entirely confined to that unfortunate class. In some places, if we may credit the accounts published

at the time or some after, none were attacked who abstained entirely from intoxicating drinks, and none who were confirmed inebriates were spared.

Besides all these authors enumerate apoplexy, paralysis, insanity and fatuity; palpitations, syncope, and morbid structure of the heart; glandular enlargements, jaundice, biliary concretions colic, mesenteric disease, and atrophy; premature decrepitude and decay; sterility and impotency. For almost all of these, perhaps all I could refer to more than one authority, and for most of them, to several.

One disease remains to be noticed which is solely the disease of the intemperate — Delirium tremens. And tho' so uniformly fatal or incurable as many that have been already mentioned, it is yet to be placed in the list of the diseases most to be dreaded; it has horrors peculiarly its own. An adequate description of it can only be given by one who has had experience, and scarcely by him. It needs the fearful shrieks, and cries and struggles of the unfitted victim to convey any just idea of the torturing fancies that haunt him. Fancies! But all who have felt them will testify to their reality. Such an one has said — in substance — that as

the saint who is about to be released from earth, has anticipating views of the glories of the better world to which he is escaping. So the demoniac when this terrible disease is upon him, has his anticipating glimpses too of the world to which he is destined; and if the bright angels that hover around the one, are indeed messengers from the land of spirits, sent to cheer him and beckon him on, so also are the fiends that mock and threaten the other, real ambassadors from the world they represent.

In conclusion I would remark that I am aware of the incompleteness of this essay; that I have found the space occupied quite too limited for any thing like a satisfactory discussion of this subject, and in order that my thesis might not exceed the bounds proper for such a work I have been obliged to omit several points of interest which I had proposed to myself, and that for the sake of conciseness only. I have avoided making any citations, & even any reference to authority, and for the same reason have written in a style more dogmatic than may seem most suitable for a candidate upon his examination.

Edwin C. Bidwell.

IV.

Dissertation
on
The importance of correct Diagnosis.

By
Nathan Taylor Bliven,
of Exeter, Rhode Island,
Candidate for the Degree of Doctor in Medicine.

Importance of Correct Diagnosis.

Every department of nature is governed by fixed laws; a knowledge of which constitutes a man of science.- the skill to use it- an artist. A science may be considered a knowledge or a collection of general principles resting upon good evidence.

It is high time for practical men to adhere to facts, leaving the prejudices of ancient times and to come up to the progress of phylosophy in all departments: especially the department of medicine upon which so much hypothetical knowledge rests.

Although the learning which a physician can obtain from books and schools is but the foundation of usefulness. the art must be added. The science of medicine rests upon as fixed a basis as any other, but will be useless without the power or skill of discrimination acquired by experience.

Art and science mutally aid each other. because art furnishes hands and science eyes; science without art is inefficient; art without science is blind; consequently both are dependent upon each other.

By art men of good sense may become quite useful to the community as physicians; but must be far inferior to what they would be if well furnished with science. The various branches of medicine which constitutes the aforesaid science has been greatly retarded by a discrepancy of ~~practice~~ opinions and prejudices which have long usurped the medical world; and which have benighted its shores with unscientific practice. For instance - The prejudices about the influence of the moon upon vegetables, nævi, longings etc.

This subject would admit of an elaborate essay; but the exigencies which are now at hand announce to me the

shortness of time and the much I have to do; therefore I must unite copiousness with condensation, perspicuity with brevity. Health is the performance of the natural functions.

Disease is the imperfect performance of one or more of them. - Still every imperfection of the functions does not amount to disease. And it may be that disease is sometimes an excessive degree of a natural kind of action.

Diagnosis is that branch of medical science, having for its object the discrimination of disease, and embracing the knowledge of the pathognomonic signs of each disease.

The diagnosis of diseases constitute the 1st part of the office of the physician to the sick room; and for the completion of this object, his vigilance should always be held in requisition.

The sources of diagnosis are,

First the History. Secondly, the Symptons, or changes in function; Thirdly, the Effects of Remedies, and Fourthly, the Morbid Anatomy, or changes in structure. It is one of the most important branches of general pathology.

The history teaches much of the probable progress of the disease, and of its effects and powers upon the general system. The symptons designate the organ principally affected, and therefore constitute the chief sources of the diagnosis.

The form and violence of the symptons, the particular order in which they appear, the particular manner in which they are conjoined, constitute additional means for our discrimination.

The principal circumstances more particularly embraced by the History of diseases, are the Cause, the progress, the stage, the effect upon the system, the season of the year, the prevalency of epidemics, the

constitution, the habits, and previous diseases of the patient.

In the study of the symptoms every circumstance which can become the subject of observation, and which is at all characteristic must be considered as of the utmost importance in forming a diagnosis.

A proper and full arrangement of the symptoms and their varieties must be of importance in the investigation and identification of diseases. Some symptoms have been considered as actual diseases, and it must be absolutely necessary to draw just distinctions between them with a view to the correct treatment.

A similar arrangement and discrimination of the varieties of each symptom are is of essential importance to the diagnosis, and of greater in this place, because the investigation has been hitherto pursued in a very partial and inadequate degree.

There are also some other circumstances

which claim our attention, the particular combination of symptoms, and the influence of one symptom in inducing and modifying the others, are observed to be characteristic of certain affections and stages of disease. The first step is clearly to distinguish and to identify the disease; the second, is to appropriate the remedy in its purity and simplicity, and with a due attention to the strength and constitution of the patient.

It is in this way alone that we can hope to remove from practice of medicine the reproach of vacillation, and uncertainty, and contradiction. An investigation conducted in this spirit would, I feel convinced; lead to some important result. It should be proposed, in the first place to make each perticular symptom the object of distinct and seperate inquiry, and considering it as a general phenomenon occuring under numerous

and different circumstances of disease, to investigate, distinguish, and arrange its variations, modifications, and peculiarities in each disease. There is in practical medicine a circumstance of the utmost importance, the recognition of a disease.

The general appearance of the patient, the peculiar combination, and the mutual influence of the symptoms, give a general character to the whole disease, which is recognised and felt by the physician of experience and observation.

It has long been remarked and as long regretted that practical knowledge in medicine is peculiar in this respect, that it cannot be taught, and that the precious fruits of experience necessarily die with their possessors. True experience proceeds from observation corrected by science and reflection.

The greatest errors of physicians seem to be want of discrimination or diagnostic

skill to discriminate one disease from another by its various and complicated symptoms. In medical science, hypothesis should be entirely discarded, and sound theory, derived from actual observation and experience, alone encouraged. Observation is a polar star, hypothesis an ignis fatuus. A thorough knowledge of anatomy is absolutely necessary; it not only firmly impresses on ones memory the situation, form and structure of the different organs of the body; it also teaches us how to discriminate disease, and to detect the nature of it with more certainty.

Morbid anatomy in particular should be attended to.

Physiological knowledge is of the utmost importance to the profession of surgery, it gives a clear idear of the healthy functions, and thus enables one to understand clearly the nature of diseased

action. For a physician to discriminate between diseases with precision, he should be well versed in general, and special pathology.

In attempting to form a correct diagnosis we must inquire into. first the Digestion, secondly, the Respiratory functions, thirdly, the Sanguiferous, fourthly Nervous, fifthly Sexual, sixthly Secretory.

We must also inquire as to partial or general, also as to Acute, Chronic or Subacute, secondly as to Epidemic or Sporadic, thirdly Malignant or Non malignant, fourthly Duration of predisposition, before the physician is called; and the duration of the disease since the predisposition, fifthly Type, Diathesis or whether it observes critical days, sixthly Whether there is plethora, Congestion or irritation, seventhly Cause, since one disease may counterfeit another, and lastly, Nosological place and where,

since sudden attacks require prompt treatment. The most important circumstances show, which we deduce are, first the general predisposition of the patient, secondly the violence of the disease or existing symptoms, and thirdly the known laws of the disease.

The diseases of the human body being numerous and complicated I need not say that the strictest observence is requisite to understand the nature of diseases; for without this knowledge our prescriptions would be at best empirical.

Nathan T. Bliven.

New Haven January 17th 1844.

V.

The Valedictory Address.

By

Abner Hartwell Brown, M. A. Dart. Coll.
of Lowell, Massachusetts,
Candidate for the Degree of Doctor in Medicine.

Gentlemen of the Graduating Class,

We have now arrived at one of those points which are found in the life of every man, to which all the events of the past seem to tend & from which those of the future are to diverge. As in the history of nations & the world, so in the history of individuals, there are epochs which mark off their allotted time into distinct periods. They serve as landmarks to separate the successive stages of the brief pilgrimage which we are performing. Instead of one, dull, unvarying scene, life by these means takes the form of an eventful drama. It is meet that at the beginning of these periods we should turn aside from the tumult of the hurrying crowd, & take a survey of the new position which we have gained. Especially is it proper, ere we go forth to take upon us new & weighty responsibilities, in a new & untried sphere of action, that we pause & consider the nature of the duties which will be required of us. These duties, in our case, are peculiar & complicated. The thoughtless may rush upon them with boldness & self-confidence, but the considerate man will carefully seek to know their character & extent, as well as his own fitness & strength. When he remembers how liable men are to errors of judgement, & how prone to place undue reliance upon their own ability, & when he considers that the duties

of the physician relate most intimately to the highest interests of man, he will be cautious how he enters upon labors of such moment. Of these duties generally it would ill become me to speak; but there is a class of them which it may be proper & useful to consider.

I propose therefore to speak to you on the present occasion of some of the duties which the young physician owes to his profession.

I do not stand here as your instructor or adviser. We shall doubtless receive from another source those counsels & admonitions which are befitting the time & the occasion. As the humblest of your number, though by your kindness your representative to-day, I wish to suggest some of those feelings & purposes with which we should enter upon the discharge of the active duties of professional life.

The first duty, which I shall mention, which the young physician owes to his profession is, to respect it.

It is impossible that men should act, in any cause, with firmness & perseverance, unless they believe that cause to be worthy of their confidence & regard. The energies of the soul are called forth only when the object to which they are to be directed challenges the respectful attention of mankind by its interest & importance. The mercenary soldier who fights the battles of a foreign prince, of a distant clime & a different tongue, treads the field of carnage,

with a far lower feeling than he who has a personal respect for the general that leads him & the cause which calls him out. Let a man have an intelligent view of any enterprise, & let him feel that great interests depend upon its successful accomplishment, then the strength of his intellect & the power of his body come into willing action. The young physician must honor & respect his profession, for without that honor & respect, it is in vain for him to look for high attainments & distinguished success in the Science which he professes to know & the Art which it his duty to practice. There is an intimate & undying sympathy between the affections & the will. What calls forth our respect & admiration & love, strongly constrains us to will & to do. If we do not truly feel that the profession of our choice is fully worthy of the place which it has always held in the estimation of mankind; if we cannot owing to its study & practice, minds sensible in some degree of its magnitude & importance, we may be assured that its higher mysteries will never be revealed to us.

But what is the Science which we are called upon to respect? Do its History & its Objects present any peculiar claim upon our esteem? If I mistake not, we shall find, upon examination, both in its History & in the Ends which it proposes to accomplish, much to bind us more closely to our profession, & to excite our respect

& honor.

There are two periods in the history of Medical Science. The first stretches from five hundred years before Christ to the middle of the sixteenth century. The second extends from this latter era to our own times. The one embraces a period of more than two thousand years, the other of less than three hundred. And yet it is a melancholy fact that, during the sixty generations which lived in the first period, fewer useful discoveries were made than in any single generation since. Let us take a brief survey of the peculiar characteristics of these two periods & see if we can find anything in the history of our profession worthy of respect.

As in almost everything else, so in Medicine, we discover its beginnings as a Science in Greece. All nations from the infancy of the race, doubtless made use of those simple & obvious methods of relieving disease, which reason itself or the instinct of animals suggested to them. But it was not till Greece began to attract to herself the attention of the world, that Medicine was taught & practiced as a distinct profession. Many were the changes which it was doomed to undergo, but before the light of Greek civilization was finally extinguished, it had assumed a dignity & importance in the state, which were destined to bear it through all the revolutions of empires & religions, for near two thousand years. The peculiarities of the Grecian character were strongly impressed upon the infant Science of Medicine. In the

early history of this wonderful people, we find the professors of the healing Art loaded with rewards & its more distinguished cultivators esteemed worthy of divine honors. Temples & altars were erected for their worship, & votive tablets recorded the diseases which they had cured, as well as the grateful acknowledgements of the restored. Hippocrates, proclaiming himself to be a lineal descendant, of the eighteenth generation, of the renowned Aesculapius, gathered around him a crowd of disciples eager to be instructed in the mysteries of an Art esteemed almost divine. This profound philosopher & faithful physician, animated with a love of fame, & stimulated by the renown of his ancestors, all of whom had also been physicians, renounced, at an early age, the empirical practice of his predecessors & struck out for himself a new path. Free from the cumbersome theories of his cotemporaries, he was guided by the light of reason & by a close observation of disease. After his death temples & statues were erected to his memory, & the incense of a grateful people went up from a hundred altars.

The impress of this man's genius has never been effaced from the science of Medicine. Substantially as he left it, it came down the stream of time for twenty centuries. The books, which he wrote, illustrated, enlarged & in some degree modified, five hundred years after, by the wisdom & skill of Galen, were the oracles of the

Medical profession till the light of Bacon's philosophy dissipated the clouds of ignorance & credulity which had so long crowded over all natural science.

Periods then unquestionably were when the medical profession seem to lose its hold upon the respectful consideration of men, In the days of Spartan legislation, when the unrelenting execution of stern & rigorous laws, & the subserviency of all things & all persons to the state, were imperiously required, when the old & feeble & deformed were left to perish as being no longer serviceable in war & magistracy, then indeed did the profession languish. Even the "divine" Plato contended that physicians were not only useless, but actually injurious to the well-being of the State, & he therefore allows no place for them in his model Republic, or a place so limited as to render them of little service to the diseased & suffering.

But notwithstanding these opinions of philosophers & practices of tyrants, the profession still received the esteem of the wise, the support of the good & the gratitude of all. Were it necessary a long catalogue of great names might be cited which would adorn & dignify any Science or Art. Amidst all the changes in states & religions, while Rome was mistress of Sparta & Athens, while the Goth & the Scythian were knocking at the gates of the eternal city,

& while the religion of the Cross was crowding before it the thousand idols of a thousand tribes, through all the long night which followed the extinction of the ancient civilization, might physicians be found, performing their work in quietness & peace, & receiving the grateful applause of their fellow-men.

It is however in the modern history of Medicine that we find most to command our respect. Time would fail me to speak of one in a thousand of the important facts & great truths which have been brought to light within the last three hundred years. Old theories have been exploded, & error & prejudice have received a check from which, we confidently trust, they will never be released. Take for example human Anatomy. It may almost be said to be entirely a modern Science. Owing to the superstitious notions of the ancients concerning the rites of sepulture, but little was known of the human frame except what accident & analogy revealed. No sooner however had these false & pernicious ideas yielded to a more intelligent view of God's works, than the structure & functions of the human body became objects of zealous & enthusiastic study. The scenes of the dissecting room, so offensive & disgusting to the uninitiated, were, as they have always continued to be, more attractive to the faithful student than the gardens of Alcinoüs, or the pomp of courts. The discovery of the circulation of the blood by Harvey, of the lacteals by Asellius, of the thoracic duct by Pecquet, of the absorbent

system generally by Hoffman, Hunter & the elder Monro, present but imperfect specimens of the result of labors in this department of Medicine. Pathology has almost grown up within the last fifty years. Chemistry, a most important branch of our Science, was born & cradled within the memory of some, not yet old men. In Physiology & indeed in every department of Medicine, the advance has been so rapid & so general, that a mere glance at it would occupy thrice the time allotted me today.

But leaving these historical evidences of the respect which we owe to the profession of Medicine, consider for a moment the Ends which it contemplates. The protection of human life & the alleviation of human suffering, are certainly objects of the highest earthly pursuit. Let the warrior weave around his brow the bloody wreath of victory - let the legislator receive the wild shouts of the thoughtless crowd - let the mere philosopher pride himself on the depth & extent of his researches, it is no idle boast to say that the physician, in the dignity of his office & in the usefulness of his labors, surpasses them all. His exploits are not visible to the gaping multitude; in the privacy of the domestic circle & the silence of the chamber of the sick, he achieves his greatest triumphs. Oftentimes even those whom his skill & discretion have saved from the grave, are themselves ignorant of the true nature of the services which have been done for them. His duties frequently call him into scenes of want &

misery; & here where there is no intelligent eye to behold his deeds & no tongue to trumpet his fame, does he faithfully perform the mission which he has assumed.

He alone can fully appreciate the value of his labors, who has himself been the subject of them. The man who has been stretched upon the bed of pain & apparent death, & has experienced the kind attentions of an intelligent medical attendant, is in no danger of thinking lightly of those services. It is the strong & robust only who deride the arts of the physician. As in religion, when the world is bright around, & all things pass on in security & peace, men laugh at the authority of their Maker; but when death appears, even in the distance, they flock to the priest & altar with offerings of myrrh & anise & cumin; so when disease, in some of its Protean forms, seizes upon him who has scoffed at the arts of Medicine, he becomes as a child & begs the services of the humblest physician. At such times error & passion & prejudice vanish, & men feel a becoming respect for the Science which releases them, temporarily at least, from the summons of the destroying angel.

Enter the sick room. Behold the manly form of the head of a numerous family extended upon the couch of anguish & approaching death. The clammy sweat stands upon his brow — the extremities are cold & insensible — the skin is shriveled & the countenance contracted — the

eye has lost its brilliancy – the parched tongue no longer performs its office – the pulse flutters to its final extinction. The physician arrives & by a few simple & well-directed remedies, changes these fatal symptoms. Heat returns to the extremities – the hand no longer burns upon the epigastrium – the contracted features expand – the eye resumes its wonted lustre – the cheek puts on the hue of re-turning life – words from the parched lips once more delight the ears of children & kindred – & in a few days the sinking victim of the Cholera walks forth into the pure air, & greets his friends once more in the market place & the exchange. These are the scenes which teach us, & teach all men, the value of the profession into which we are about to be introduced. To turn aside the arm of death when "smiting childhood among its playthings," & beauty in its freshness – to draw back from the borders of the grave the noble form whose manly bearing & intellectual brow have been the admiration of a community or a state – to reduce to order again the deranged mental faculties of the two ambitious & studious youth – these, & such as these, are the objects which the physician proposes to accomplish. Is not a profession which has such ends in view, & whose history is so full of great names & great truths worthy of the respect of mankind? And especially of those who have made its history their study & who pur-pose to make the accomplishment of its ends the business of their lives?

Another duty which the young physician owes to his profession is, to study it.

The reasons for this are two-fold - those which relate to himself & those which concern his fellow men. It is his duty to study both because he is bound to cultivate his own soul, & because to his skill & judgement are to be entrusted the health & lives of families & neighborhoods.

It is too obvious to need remark that the period usually allotted to professional study, is altogether too limited to allow the student to make any extended researches in any one branch of the Science to which his thoughts are directed. The most that he can do, & the most that is required of him, is to obtain a general view of its various departments, leaving it for time & his own exertions to mature & enlarge that view. The student feels this; he sees that the field is boundless, & he knows that a few months are totally inadequate to permit him even to glance at one in a hundred of the wonderful & useful truths which throng upon his vision. He feels that he must be an Eclectic, selecting a principle here & there, gathering a truth now from this quarter, & now from that, out of the countless multitude which are all important, & all necessary to the most successful discharge of his duty.

Nor is this true of professional students only. All, who ever deserved the name of student, have felt, in the progress of their education,

that they had entered upon a work of limitless extent. The field enlarges as they advance; what at first seemed small & contracted, requiring only a day or a week to traverse it, stretches out until the eye & the thought are pained in attempting to reach its unknown boundaries. These thoughts press upon ~~him~~ the student all along his course, & are never more fully appreciated than when he is about to go forth into the world. Of the thousands who have received the honors of this venerable Institution of learning, how large a proportion resolved, at the time of their graduation, that they would not abandon those habits of study to which they had been so long accustomed. And yet if all could be questioned, what a confession of slothfulness & neglect would be made. How few have carried into execution the resolutions which were adopted with so much care & earnestness.

In the medical profession it requires unusual stability & self-denial to carry out those plans of improvement which every thoughtful man will form. The life of the physician is eminently an <u>active</u> one. His time, his judgement, his thoughts, are all his neighbors'. Liable to continual interruption, exposed to a thousand vexatious annoyances, harassed by the whims of the hypochondriac & the ails of the dyspeptic, he might be pardoned if the thought of his books seldom occurred to him. But notwithstanding the unfavorable circumstances in which he may be placed, it is the duty of the

young physician firmly to resolve & firmly to execute. Amidst the pressure of business & the anxieties of the sick chamber, time ought to be found, & must be found. by the physician. for the improvement of his knowledge, if he desires ever to rise above the condition of the mere routine practitioner. I know the embarrassments to which he will be exposed in the prosecution of his studies - embarrassments, such as beset no other class of men - but so much the stronger must be his resolution to overcome them - so much the greater his zeal in gathering up & judiciously appropriating the fragments of his time. The records of our profession abound with the names of those who, in the midst of continual perplexities & labors, have won for themselves a lofty place among the great & learned.

I have said that the young physician ought to continue the study of his profession, after he has entered upon the discharge of its active duties, on his own account. Servant of the public as he is, yet his obligations to himself are paramount to all others. Wealth may attract him by its dazzling rewards, political strife may allure him by its transient fame, ease & pleasure may seek to seduce him from the paths of knowledge, but if he be conscious of the duties which he owes to his own soul, he will let neither the love of money, nor the desire of political distinction, nor the gratifi-

-cation of any passion interfere with the due cultivation of his intel-
-lectual nature. I scorn that theory of life which makes man a
mere animal, placed here to spend a few sad years in clothing &
feeding the body, tormented by disease & anxiety, & dying at last
like the unthinking brute. I scorn that earthly & sensual philos-
-ophy which teaches that man's knowledge should be limited by the
uses to which he desires to put it, that, if one knows enough to
earn his daily bread & to say his prayers, he has attained unto
all necessary knowledge. I scorn that philosophy which robs
humanity of its brightest excellence, which pulls down the throne
of reason in the soul, & quenches the spark of celestial life in the
human bosom. If there is any duty which rises above & swallows
up all others, except those which we owe directly to our Creator, it
is that which calls upon us to love & cultivate the intellect
that God has given us. How this shall be done, whether by study-
-ing Anatomy, or Botany, or Mathematics or Greek, circumstances &
the disposition of the individual must determine; but that,
in some way & through all the life, the higher part of our
nature should receive infinitely more time & attention than it does,
admits of no question. The man who dies at fifty with the same
thoughts & feelings he had at thirty, has left a vast amount
of work undone.

A cultivated intellect, next to that "peace of God which passeth knowledge," is the noblest possession which the exertions of this life can gain for us. Before it all the wealth & applause of the world dwindle into insignificance. If the soul would vindicate its heavenly origin & prove itself to be superior to the gross forms of matter by which it is surrounded, its must come forth upon the scenes of its action, clad in its own armor & wielding the sword which its own skill has formed. It must evolve by its own operations the great truths it would teach & practice. Then will it feel conscious of its lofty origin & eternal existence. It will laugh at the thunder & lightning, & all the convulsions of nature; it will take the long train of diseases by the hand, lead them to the charnel-house of death, & mock, with a song of triumph, their most destructive deeds. No wonder the doctrines of Materialism prevail so widely, when men so commonly put far away from them all thought of their intellectual nature, & spend & are spent in heaping up the treasures & honors of a day. No wonder that Society guards, with so much care, the tangible & the temporary, & makes so little provision for the mental cultivation of the thronging crowds that are coming forth upon the stage of life. Men cling to things that are seen & felt, & almost deny the existence of those which are not seen & felt.

Now the very duties of the physician tend to cherish this feeling; they lead him to undervalue the higher intellectual attainments & to regard with favor that knowledge only which is directly applicable to some practical purpose. It should unquestionably be his chief aim to make those acquisitions which will be of most use to him; but he should do this, not simply because they enable him to become a more successful practitioner, but because he thereby enlarges & strengthens his own mind. Thus only can gain that independence of thought, that self-control & self-reliance, which make the rulers of Senates & the commanders of armies superior to the directors of an alms-house, or the skillful surgeon & judicious physician superior to the workmen of a treadmill. That the Science of Medicine & its kindred branches furnish all the materials for this mental discipline, no one will deny, who has any true conception of the vastness of this department of human study. To them let the young physician resort, & at the same time that he makes himself an abler attendant of the sick, he will fulfil one of the highest objects of the soul's residence on earth.

It can never be too distinctly impressed upon our minds, Gentlemen, that experience alone cannot make us what we ought to be. It is the scientific physician who gains the confidence & applause of his fellow-men. A man with gray hairs & very limited acquisitions

may excite the wonder & admiration of a village or a town for his great skill & profound attainments; but it is quite another thing to win a name which shall be known & respected by the wise men of a nation. All cannot obtain this reward, & all do not seek for it. Our aspirations may not rise so high; but so much the community has a right to ~~expect~~ demand of us, that we know what there is to be known by industry & diligence of the various forms of disease, & the most approved methods of cure or relief. And this demand we must meet, if we choose not to dwell forever in the wilderness, without even catching a glimpse of the promised land. The age in which we live, & the just expectation of the public, call upon us for no contracted views, for no mean standard. There are great interests at stake, & successful alone will be we who truly prepares himself for his work.

The third duty which the young physician owes to his profession is, <u>to improve it</u>.

That there is room enough for improvement in the Science & Practice of Medicine, no intelligent physician will deny. Although the Art of healing is nearly coeval with the existence of the human race, & although it has been practiced as a distinct profession for several thousand years, still, in consequence of the obstacles from without with which it has been compelled to struggle, & its own intrinsic difficulty

& obscurity, it has not reached that degree of perfection, which we might expect to find. The causes of this comparatively slow progress are numerous & weighty, but do not require our attention in this connection. I would rather inquire how the results of these causes, so much to be deplored, can be remedied? What can we, who are about to enter into relations in which we shall most sensibly feel the imperfection of our art, what can we do to supply its defects & correct its errors?

Every man, however humble his pretensions, can do something in this work. Nay, he is bound to do something. If he cannot discover a great truth, like the circulation of the blood, he may improve our knowledge of the indications which the pulse gives in disease. If he cannot demonstrate a law which shall be important & far-reaching in its consequences, he may record the facts from which other minds may evolve the law. If he cannot write out, in the great volume of the world's history, some new principle which shall save cities & nations from the ravages of disease, he may at least make his mark there, to show that he has not been unmindful of his obligations, though unsuccessful in his labors. But he need not be unsuccessful, & he will not be, if he feel a tithe of the interest in the improvement of his profession, which he feels for a thousand objects of far inferior moment.

The great want of the profession is facts. We have theories & sup-
-positions enough. If they were all drawn out in octavos & quartos,
they would crowd the archives of your splendid Library. Facts,
accurately observed & faithfully recorded are the elements of all
progress in Medicine. No man can sit down in his closet & solve
the problems which relate to health & disease. The attempt has
often been made & has as often failed. Hypotheses, founded upon
a limited number of ill-observed facts, have followed each other in
rapid succession. No sooner has one been generally adopted, than
some aspiring genius has come forth from his study, overthrown
the dogma of his predecessor, & erected another upon its ruins, to
be in its turn subverted & forgotten. The advocates of these opposing
theories have never been faithful observers ~~of facts~~; indeed it is next
to impossible that a partizan should be a faithful observer of facts.
He will distort them; he will see things where they do not exist;
his prejudiced & interested eye will find disease & disorganization
in the most healthy structure. If a man has a theory to establish,
the facts which he adduces in its support, should always be re-
-ceived with great allowances.

There is no more striking illustration of the justice of this remark
than that afforded by the conduct of Broussais & his disciples.
They could see inflammation & ulceration in the tissues of the.

alimentary canal, when the most practiced eye of their opponents could find neither. They seized upon the appearances which the membrane had assumed after death, as the real effects of disease during life. In this way they constructed an imposing theory, which, for a time dazzled the minds of the ardent & enthusiastic; The authors of it however have lived long enough to see it reckon-ed among the vagaries of a past generation. So will it always be with a large proportion of those theories which are not founded upon the most extensive & accurate observation of facts.

The young physician should therefore begin his work, free from all hypotheses, & willing to receive the truth, however it may differ from his preconceived opinions. Without any theory of his own or of any other man to support, he should carefully ob-serve the facts which may be presented to him, resting satisfied that his progress, though slow, will be sure.

I know the labor & difficulty of collecting, arranging & analyzing these facts; the physician shrinks from the task, & leaves it all to those who walk the wards of Hospitals. Labor & time & care & watchfulness will unquestionably be demanded. But he who will not cheerfully give these, has not learned the first lesson of his profession. What is life worth, & for what was it given us, if not to work in? During the angry controversies

between the Nominalists & Realists, one of the more amiable disputants became weary of the incessant warfare & begged his brother philosophers to release him from further service, that he might take a little repose. "Repose!" cried one of them, "will you not have the whole of eternity to repose in?"

[Multa desiderantur]

Such then is the numerical method of studying disease, which has been the subject of so much derision & contempt. Let the young physician look at it, ere he commences his work, & see if, by its assistance, he cannot, in the course of a long life, contribute his mite to advance the Science of Medicine. As certainty is more useful than supposition, as fact is truer than fiction, so is this superior to the old method of relying upon unrecorded experience & general impression.

None can deny that Louis himself has settled many principles with mathematical exactness & certainty. The labors of such a man command our respect. Fitted by nature & education for any sphere as a physician, to which his ambition might lead him to aspire, he voluntarily abandoned the prospects which were before him, & shut himself up in the pestilential air of Hospitals. Here for seven years, the very flower of his age, he observed & recorded. At the end of this period, he had accumulated a vast amount of

facts, the greater part of which, it is said, he threw aside as unworthy of confidence. Then, after this long apprenticeship, he com-
-menced his work anew, & has prosecuted it, with the most pen-
-severing industry to the present time. He seems to have scrupu-
-lously complied with the advice of the illustrious Sydenham. "In writing the history of diseases," says that great man," every philosoph-
-ical hypothesis which has prepossessed the writer in its favor, ought to be totally laid aside, & the natural & manifest phenomena of dis-
-eases, <u>however minute</u>, must be noted with the utmost accuracy." Guided by these principles, & animated with a love of medical truth, Louis has become the master observer of the age. His labors are valuable on account of the results which have been already obtained, but much more valuable for the method of investiga-
-tion, of which they are illustrations. Dr Rush tells us, that "however much the contradictions & uncertainties of theories may be com-
-plained of," he believes "much great uncertainty & contradiction may be found in the controversies among physicians concerning what are said to be facts, & that too upon subjects in which the senses alone are employed to judge between truth & error." How can Medicine reach the highest state of precision of which it is capable, while the very facts upon which its principles are founded, are matters of dispute? How can these

facts be satisfactorily determined without observation? And how can the results of observations be fixed & definite, unless they are recorded & compared, like the analyses of the chemist, or the calculations of the astronomer?

We are too prone, Gentlemen, to think that the obstacles which oppose the progress of Medicine, are altogether insuperable. The ever-varying influence of climate upon the human body, the continual changes in the employments & habits of mankind, & above all the mystery which envelopes the principle of life, are often supposed to present an insurmountable barrier to the attainment of exactness & certainty in medical knowledge & practice. But these very difficulties depend upon questions which are yet open for the investigation of the zealous & industrious student, & when they are satisfactorily answered, the difficulties may disappear. Is vitality the same in all animal bodies, & does it produce uni-form results under similar circumstances? Disease is a problem; you have given the signs & symptoms, to determine its seat, nature & treatment. Is not vitality, so far as it enters into the calculation at all, a constant quantity, & will it not affect the result in the same way in every case?

So in regard to the changes & revolutions which diseases are ever undergoing, is there no principle by which these changes &

revolutions are regulated? No one who is at all conversant with medical history, is ignorant of the fact that many diseases which were common several generations ago, have almost entirely disappeared, & that, within the same period, many new maladies have begun their work of destruction. Even within the memory of physicians now alive, striking changes in the form & character of diseases have manifested themselves. Indeed each year seems to be distinguished by some peculiarities in the nature of the maladies which are most prevalent in it. Now do all these things happen by chance, or is there ~~to~~ some great law which regulates the appearance & disappearance, the severity & mildness, of the physical ills which harass & destroy mankind? These are questions of interest, & though they may seem difficult, it is not the part of wisdom to pass them by as beyond all possible consideration. That were to forget that time is always advancing & always unfolding some new truth. It is man alone that stands still & says "I ~~can't~~ cannot". Some physicians seem to have no idea of progress in their profession, except that which men sometimes make in Penitentiaries. They are satisfied to walk in the paths their fathers trod, & to lie down in the grave when they have done giving physic & making money. Give me a too sanguine temperament, or youthful enthusiasm, — anything else but this living death.

There is no surer way of cramping investigation & retarding improvement, than by affirming & believing that labor will be spent for naught. The young physician should cherish a trusting & hopeful spirit. There are brighter days before the world – let him hail with gladness the earliest & faintest signals of approaching light. The time may never come when sickness shall be known no more, when pestilential miasms shall no longer desolate the fairest portions of the earth, & when the cries of pain & the ravings of madness shall no more torment the ear of friendship & love. Exemption from these evils belongs to a state of the world where sin blights not the works of God. But that many of the maladies which now afflict men shall be banished by the skill of the physician, & that many more shall be disarmed of their terrors, let us confidently hope. Why should not Medicine keep pace with the advancing spirit of the age? All around us, in every department of knowledge, of trade & of labor, experience & ingenuity are devising new means of promoting the wellbeing of man. Civilization is stretching out her arms, & embracing continents & the islands of the sea. The swarthy tribes of the south & the indolent nations of the east are, for the first time, sending up their representatives to the courts of those who preside over the destinies of the world. The missionary of Christianity collects his little groups of pupils in the very heart of Asia, & endeavors to animate them for the labors of civilization, by the apparently romantic

expectation that the unnumbered millions of their vast continent shall yet honor the religion & the customs which they now so much de-
-spise. Turn wherever we may, we behold unequivocal evidence of the activity of the human mind.

Let us strive to catch this spirit of progress which is animating all the labors of the age. It will nerve us for new acquisitions; under its influence, irresolution & inactivity will give place to firmness of purpose & vigor of execution. By its magic power the great deeps of our souls shall be upheaved, & the dawnings of a new life shall burst in upon us. If we would labor with zeal for ourselves or others, we must have faith in the future, & not be forever hanging around the tomb of the fathers, or clinging to the present, as scared children to their mother. All events, in all departments of human industry, point to a new & important era yet in the bosom of the future. To help usher in that era, is our work. But we shall become sluggish & torpid, if we do not believe it is in re-
-serve for our race. Let us look for it with the same earnest longing, with which the Israelite looks for the coming of the Messiah.

Thus, Gentlemen, have I briefly spoken of the three principal duties which we owe to our profession, to respect it, to study it, to improve it. In the faithful performance of these duties is our only

hope of obtaining honor & respectability in the employment which we have chosen. We may possibly gain a livlihood, & pass through our appointed years in ease & pleasure, if we discharge them imperfectly, or entirely neglect them. But he who has no higher aspirations than these, will never wake from the lethargy which binds him down.
I do not suppose that we shall have all the success which our fresh enthusiasm may have led us to anticipate; I do not suppose that the visions of youth will be the realities of manhood. But one thing is certain, he who does not know how to appreciate excellence in others, & to aspire after it for himself, will most unquestionably lie down in his grave without having attained unto it. The first element of excellence is a desire to possess it. The first indication of success is a resolute determination to deserve it.

VI.

Dissertation

on

Animal heat, digestion and motion — not chemical action.

By

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Animal. heat. digestion. motion, not chemical. action

Perhaps no subject has attracted the combined attention of the chimist, and the physiologist, during the last few years, more than the investigation of the causes of that steady degree of heat, with which all animals are endowed; its superiority to the surrounding atmosphere in all climates and seasons, and its power of resisting all extremes of temperature... From the physiologist who regards it as a stamina of simple vital nature, unexplained by any known cause, to the chymist who finds the ultimate cause in the supposed mutual chemical action of the elements of the food, and the oxygen of the air, and vital force a result not a cause; there would seem to be no satisfactory medium.

The theory which at present seems to be gaining ground, even at the expense of facts, is that of Black, Lavoisier, and La Place - and lately carried somewhat farther by Liebig. He attempts to prove that there is an exact relation between the consumption of food and air and the development of heat and mechanical force, and that respiration is essentially the source of heat. Though it may seem an affectation of argument for the weak to question the strong - we shall present without any particular system of arrangement, a few objections to this hypothesis - 1st The temperature of the lungs would increase beyond the endurance of organs so delicate however small the quantity of latent heat of the air which might become sensible - the conduction by blood vessels would not be sufficiently rapid

to remove the constant accession by fifteen respirations in a minute and where according to Leibing thirteen ounces of solid carbon are generated from the Carb acid gas. in twenty four hours, This is an old objection but one which never has been answered, — 2dly. The caloric given out by oxygen in its change into carbonic acid would not heat even the expired air to its ordinary temperature; experiments on this subject appear to be accurate, again Mr Dulong asserts in every case of fair experiment the quantity of caloric disengaged by animals was always superior to that which would result from the quantity of carbonic acid formed — 3dly. The temperature would be greater at the centre than at the extremities of circulation, and vice versa in that class of animals whose blood is changed at the surface having no respiration; but the thermal condition of all parts is nearly the same varying from 95° — 100° — 4th. The conversion of venous into arterial blood or the change of the iron of blood into the red oxyde, never takes place without rapid combustion; the change of colour conjectured by Sir H Davy as caused by the inspiration of light. 5th. The animal power of resistance to all extremes of heat and cold, contrary to the laws of conduction in inanimate matter, is proof that temperature is dependent on some power essential to life. In birds of the smallest size the temperature is ten or twelve degrees above the human, considered in the connexion how far greater the abstracting power of the atmosphere in such small bodies in consequence of the ratio of their surface being as the square of their mass

it is unaccountable on chemical principles and must depend on a specific generating power furnished in various degrees to different animals, very great in small animals, to enable them to resist the strong power of abstraction in the external medium - The temperature of a swarm of bees for instance is as high as that of the human body — 6th. Heat exists in the hybernation of torpid animals, not eating or breathing as asserted by naturalists, far above the external medium - loss of "materiel" is not an adequate cause; Again it is stated by Portal and others, that the temperature is maintained after death from apoplexy even above the natural standard, to a period beyond the abstraction in a little mass of inanimate matter, and Dr. Badenoch ascertained by repeated and accurate experiments that the heat of those who die by insolation continues for several hours after death some degrees above the natural standard, in his work "on diseases of India" he states one case six degrees above life and health or 105°. Farenheit ten hours after death and before the process of putrefaction had commenced — 7th. If the heat of the body were dependent on respiration solely, a voluntary quick and prolonged respiration would increase the temperature of the body at will which is not the case Again if the stimulus of food increase the temperature of the body why is it not increased during digestion, and why is not the relative temperature depending on the character of food and time of assimilation? and in low fever when no food is taken and respiration and circulation extremely weak, why is the heat excessive seeming almost to burn the hand applied to the surface?

8th. Nervous influence, and mental emotion excite and depress human tempera

-ature to a great extreme. proving sufficiently that temperature is not depending on chemical causes, such as mixture or fermentation or a mechanical one as attrition - Mr Brodie found that when an animal was decapitated and the brain and spinal marrow both destroyed and the action of the lungs kept up by artificial respiration. the circulation in part continued and the usual changes of venous into arterial blood kept up. yet the animal grew cold and the generation of heat seemed suspended synchronously with the destruction of nervous energy. and respiration cooled instead of warming - and the animal in whom the artificial respiration was kept up. cools sooner than one killed at the same time and left alone - The just inference is that respiration and circulation instead of maintaining heat diminish it, and the source of heat is destroyed. with the loss of nervous energy -

Chossat divided the brain of an animal anterior to the Pons varolii; the eighth pair of nerves remaining uninjured, respiration continued; the circulation went on; but the temperature of the animal sank 28° in twelve hours when it died, the heat taking off most rapidly at the commencement of the experiment. These experiments were repeated with like effect on the spinal marrow only death occurred sooner. the lungs crepitated. respiration continued yet the animal appeared to die of cold. Chossat also ascertained that the lowest life point of warm blooded animals was 79°. consequently the resistance in a temperate climate must be over 60° in cold weather more than in warm and respiration should be more than doubled according to Liebig's theory

Again if nervous agency says Liebig "is the source of part of the animal heat in the human body; it means nothing else than to derive the presence of motion, the manifestation of a force from nothing. But no force no power can come of nothing." What is this but rank materialism?

9th. Heat is evolved where there is no respiration or innervation and but a feeble sensation. In plants there is a power of generating heat; whether the causes be galvanism or oxygen ~~effect~~, they must be regarded as exciting not constituent causes. Plants in their winter growth beneath the snow or ice increase in temperature so much by vegetation as to melt the super incumbent stratum. 11th. The variations of temperature in different parts of the body prove that heat does not emanate from a common centre of circulation, or the temperature would be uniform at equal distances, and increased where the volume, as at the heart, is great. Dessault found the heat of the rectum to be 100° Farenheit axilla 96°, chest 92°. Davy found the temperature of a naked man just risen from bed to be in the middle of the sole of the foot 90°; in the calf 95°, in the ham 91°; in the middle of the thigh 96°,5, in the groin 95°; Three lines beneath the umbilicus 94°, axilla 98°. Mouth 102°; but these parts are more or less affected by the circumambient medium. To judge of the comparative temperature of the internal organs, Davy killed a calf and noted internal and external temperature. The blood of jugular vein was 105° carotid artery 107°. Rectum

^ Nor is it explainable by the theory that the change is effected gradually in the arteries or capillary vessels for in that case the degree of heat would be greatest in the neighbourhood of large vessels and wherever there is accumulation of blood by disease, which is by no means a general rule, —

at four times disjunction the same temperature. Lordal 90° metatarsal being double the distance 97°; seven degrees more - Knee femur & thigh 102.3.4 respectively - It is impossible to explain these differences, without supposing that each portion of the body generates in a measure its own heat, they are not at all explainable by the chemical theory. 11th Respiration is a cooling process, one of the main purposes of respiration is to invigorate and refresh the vital powers by repressing the generating power of heat. as we know from every day experience in warm weather, and when the air is not sufficiently cool to produce this effect, distress arises from the accumulation of heat; the most salutary point being about 62°. Again the sudden check of the generating power in those who pass suddenly from a cold to a tropical climate produces langour debility and various diseases, to which, the natives are strangers; the application then of a great degree of external heat lowers the powers of life, then as heat is a stimulant, the contrary should be the effect, and this apparent contradiction is only accounted for by supposing the generating power to be repressed and thereby constrained in its exertion), and vice versa, the invigorating effects of cold within certain limits are explainable on this supposition of a vital cause of heat, exerting itself, and the excess, defect, and salutary medium depending on the state of actual, nervous or vital excitement 12th. The consumption of air is inadequate to the supply of heat, it

it would not meet the expenditure. Legallois asserts, that were the whole of the calorie of the expired air set free at once, it would be insufficient for the constitution of the arterial blood; but the impossibility of calculating the expenditure of animal heat by various causes in the external medium render an exact estimate difficult, yet we know the generation must be extremely rapid. to prevent the body from freezing when the thermometer is below zero, we know together, and when the diff in respiration is entirely out of proportion to the increased abstraction of heat. 13th. The condition of the system after a large burn. the depression of all the powers of life, when so much surface has been deprived of its (nervous) energy, proves the power of some nervous agency at the extremes of circulation, to produce heat.

Digestion. when we consider the changes so constantly and rapidly going on in the human stomach, and duodenum, affecting certain combinations and decompositions peculiar to life, the evidence is manifest of organs & agents totally different in their operation from those of inanimate matter. The change of aliment traced in depraved digestion for instance which would require days out of the body by chemical action is effected in an hour, again the ultimate results of these processes of the living powers, the conversion of vegetable, animal, and mixed aliment into matter of the same essential character, as existing in the bones and flesh of the animals indiscriminately, are very striking. The vegetable of the Ox, the animal of the lion, and the mixed food of the hog, form identical

flesh and bone inimitable by any chemical action indeed matter. How if there be a mutual proportion between the elements of the food and the air inspired, are the results of all these changes be the same? Is the frequency and fullness of respiration in the ox not less than in the Lion and is it not required more, whence from the nature of the food azote ~~found~~ abounds? How is it that according to Liebig, 13 per cent azote is found equally in the composition of the flesh of herbivorous animals in whose food there is no amount of azote ~~[illegible]~~, and in the flesh of the carnivorous animals in whose food azote abounds? Mr Allen has shown that ~~so~~ little azote is found in the food of grain-eating animals, and that more is thrown off from the lungs than is inspired. hence it must be elaborated by the assimilating process of life, what then becomes of the theory of just proportions? The same may be said of the carbonic acid thrown off from the system at the rate of 13.5 ounces in the twenty four hours in the lungs alone, whence does it come? Is it absorbed into the skin, or taken in the food? the supply is inadequate entirely. hear - Liebig on this matter "The animal body is absolutely incapable of producing an element, any body, such as nitrogen and carbon out of substances that do not contain it, and it obviously follows that all kinds of food, fit for the production of blood, cellular tissue etc, must contain nitrogen, because the element is essential to the composition of the organ, because the organ itself cannot create

it and finally because no nitrogen is absorbed from the atmosphere in the vital processes, surely this is reasoning in a circle, there must be nitrogen in the food, because it is wanted; but it is not found in the food of these animals in any considerable quantity by chemical analysis — "The organs cannot create it, say Liebig, where is the proof? The chemical changes of galvanism bearing a strong analogy, to animal powers, would seem to suggest the presence of some powerful imponderable agency, by whose operation these changes are effected — The three vegetable constituents said by Liebig to contain nitrogen are 1st. Vegetable fibrin of the expressed juices of vegetables or the gluten of the cerealia, found mostly in wheat. 2d. Veg. Albumen coagulated at the boiling point, found in nuts almonds and oily seeds. 3d Veg. Caseine, soluble but not coagulated by heat, found in beans peas and leguminous seeds; even allowing this proposition and that vegetable fibrin and animal fibrin are the same (by no means apparent on the evidence before us); yet the extremely small quantity of nitrogen in the grasses, the principal food of graminivorous animals, will not account for the demand and supply in their organism; hay for instance contains but .01 part nitrogen yet in the animal feeding exclusively upon it .17 of nitrogen is found — " — Liebig theory of animal motion is entirely (we believe) original ~~and~~ his great object (without which he confesses the argument of no avail) being to prove vital activity and other motions of common origin

in the human body by decomposition and loss of substance in the part giving motion, overcoming the chemical attraction of the constituents of the food for one form says he, the force manifested is available (the body is active an acid for example) in another not, (the body is indifferent neutral) in a third form the momentum of force is opposed to that of the first, (the body is active but a base); but at the same time Part third "Organic Chemistry" he acknowledges as unexplained this peculiar property. "Exactly (says he) as we consider the properties and laws of light to be dependent on a certain luminiferous matter or other which has no connection with the laws ascertained by investigation". This is conceding the whole ground. for it is not the properties of vital motion he attempts to show, principally, as resulting from chemical action but the cause. Again, Liebig states that the exercise of a part depends the part by loss of muscle, and (that loss a measure of the motion Now it is well known that muscles are increased in size by motion and if there be any loss of substance it is in the adipose tissue, not in the muscle — again for a certain amount of vital force manifested an equivalent of oxygen enters into the substance of the organ, and a corresponding proportion of the organ is lost in the form of an oxidized compound. for instance if it require 10 pounds carbon expended in the shape of steam to raise 100 pounds weight five feet it will require 10 pounds of carbon to pass from the living tissue to the same effect in a man — such a proposition may show the folly of attempting an

explanation of vital laws on chemical principles. The fondness of this author for oxygen is characteristic. Do you ask, what is the cause of animal heat? The answer is oxygen of respiration. What is the process of digestion? Oxygen of the saliva. What causes motion? The answer is still the oxygen of the blood. Again, growth and motion he considers the same "The same vital force (says he) which we recognize in the plant as an almost unlimited capacity of growth is converted in the animal body into moving power" here then the composition of motion and nourishment are the same. ——— Finally we cannot refrain noticing some physiological errors of Liebigs great works. 1st "In all chronic diseases death is produced by the same cause, namely the chemical action of the atmosphere" for instance he might have added in gout, rheumatism, neuralgia, 2d "The research into the conditions necessary to keep the human body in a normal state is not more difficult than in case of a clock" Liebigs practice of medicine must have been very successful. To have established this fact, the slight difference between a man and clock being the former is not as easily taken to pieces and cleaned as the ~~former~~ latter. 3dly "The size of the thorax of an animal is unchangeable. we may therefore regard the volume of air that enters at every inspiration as uniform" so far from being the case that the state of the system, exercise, clothing may and do cause constant variation of the volume of air; and the thorax varies with every respiration 4th "The cooling of the body always increases the amount of food necessary and the amount of food is proportion to the quantity of clothing

now a man will perish sooner from want of motion than from want of food
5th. "Every motion, every manifestation of force is the result of chemical change
in the secreted fluids, every thought, every sensation, is accompanied by
a change in the substance of the brain." This is essentially denying the
doctrine of spiritual agency and making every thing the result of
material energy: the prominent tendency of the German schools of
the present day. 6th "Exercise and labour cause a diminution in the
quantity of menstrual discharge" according to most works on midwifery
the quantity of this peculiar discharge is increased by healthful ex-
ercise and diminished only when in morbid action, 7th The
animal organism is only a higher (kind) order of the vegetable - again
animals in such circumstances (with their fattened) may be compared
to plants possessing in the highest degree the power of converting all
food into its own structure - this is classification with a vengance
, Lord Monboddo's theory of tailed humanity is merciful to
this, no difference between a tied and fed animal and a vegetable!
8th. The most decisive experiments of physiologists have shown that the
progress of chymification is independent of the vital force, that it takes
place in virtue of a purely chemical action - but we have no decisive
authority: the best that of Dumas Magendie, La Place etc, is against
it - How applicable to this subject Leibings own remark "Experiments
made as they too often are without regard to the necessary natural

conditions possess no value, and may be readily dispensed with. It will require many more experiments, much more evidence — than yet furnished to prove that vital force has nothing to do with chymification, and that in the action of the gastric juice on the food no other element takes a share except the oxygen of the atmosphere and the elements of the water, and that this oxygen is introduced directly into the stomach being entangled by means of the saliva, and enclosed in the shape of froth and there enters into combination with the food, while the nitrogen escapes by permeation through the animal membranes to the lungs, and Liebig gravely calculates the quantity of air in each cubic inch of saliva. Again "By the respiratory motions, the gases which fill the otherwise empty spaces of the body are urged toward the chest; for by the motion of the diaphragm, and the expansion of the chest a partial vacuum is produced in consequence of which air is forced into the lungs by atmospheric pressure, all the gases thus receive an impulse toward the chest." How this passage is effected of air and gas through substance firm and often air tight such as cell substance and membrane Liebig has not informed us — These are a few among many statements which bear evidence of error on their face. Your time and patience ~~and patience~~ Gentlemen have been sufficiently tried —

Henry Lewellen. Wakeman Burritt

VII.

Dissertation
on
General Diagnosis.

By
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Candidate for a License.

General Diagnosis.

There is perhaps nothing that so peculiarly distinguishes the judicious, scientific & reflecting physician from the mere empiric, routinist or hap-hazard prescriber by formulas, as the former while the few so happily possess of judging from symptomatic effects of the causes, origin, nature, & location of disease, even when at the first superficial glance, they might be almost inclined, (did they never indulge reflection & were not their own reputation & the honor of their profession involved) to abandon the enquiry in despair. A certain french medical writer has observed, that the physician contending with disease is like the blind man fighting with a club in a mixed multitude of friends & enemies, where either may be the victim of his blows; If he (the physician) hits nature he kills nature; if disease he kills disease. This may be applicable to him who never investigates, & hunts chance for the remedy, but can hardly distinguish the truly well qualified physician.

Nature acts by fixed laws & principles, & if we trace her through all her mysterious & beautiful windings, we cannot but be impressed with the wisdom & beneficence of him who has established that immutable law, for her guide, "Thus far shalt thou go & no farther!" Disease may not therefore be considered as inflicted upon us directly by a being so benevolent & good as our Creator, but as the result whether voluntarily or involuntarily of some infraction by ourselves of those laws so benevolently designed for our happiness

& well being here.

The number of those who are remarkable for accuracy of diagnosis must necessarily be small or in a ratio proportionate when contrasted with the mass of their profession, that the number of those bear to the general mass of mankind who never allow a fact to escape which is made known to their senses, without culling from it an useful idea, to be treasured up in the store house of memory. The number of those who pass through life as it were blindfolded as far as causes or first principles are concerned is by far the greater, & this can with equal justice, though unfortunately, be said of our own profession, for eminency in diagnosis can be attained only by a cultivated judgment joined to persevering observation & enquiry & aided by a general & comprehensive acquaintance with physiology & pathology. Experience goes far to make the wise & judicious physician; but experience unassociated with observation & discretion will never dispense the mists of error into which we must be constantly thrown bed. Diagnosis embraces a much wider field for enquiry than diseases might at first seem to indicate, for it is not alone by morbid symptoms that we can always determine the cause, particular character & tendency of disease; age, sex, moral & physical temperament, climate, occupation, mode of living, conformation of body, idiosyncrasy, previous disease, hereditary predisposition & the nature of the predisposing & exciting causes will frequently supply us with valuable information as enabling us to arrive at a correct diagnosis. The diseases of a chronic form

more especially, the light which we may gain from a thorough investigation of these points or "land marks" is indispensible to our subsequent success.

Much may depend also, in forming a correct diagnosis, on the manner we may interrogate our patient. An unmethodical, careless & desultory examination must result unsatisfactorily, & a sullen, morose, peevish or restless manner may excite the anger or wound the feelings of our patient & brand us as hard hearted & unfeeling. Frequent association with scenes of distress blunt the sympathies of many men, but such should never show by their outward manner, to their patients, that such is the state of their inward feelings, for nothing tends so much to gain their confidence & esteem as an unobtrusive sympathy with their sufferings & distress. Our language too should always be fitted to the conceptions of our patient, (of which a discerning physician can easily judge) for a technical phraseology unsuited to his mind, or a pompous manner seldom fails to excite his contempt & disgust. The tale of his sufferings too should be listened to with an earnest & interested bearing & he may be supposed to tell his own story at first without interruption; while at the same time the mind of the physician can be culling & connecting from the mass any symptoms which when combined with what he may subsequently elicit will lead him to a correct diagnosis.

The first things that strikes us on entering the sick room

on the countenance, expression of the eye, attitude & motions & voice of the patient & in many instances these external appearances may convey some just impressions of the nature of the disease before a question is asked. It is proper before we proceed to a direct examination of the pulse (if our patient is in a proper state for so doing) to engage him in conversation on some topic foreign to his disease, until the nervous agitation which frequently arises in his mind on the approach of the physician, has entirely subsided, or we may be led into error in our opinion. I have observed occasionally (in the little practice I have seen) that a pulse which has been 100 or 120, if examined on first approaching the sick bed, has on a second examination, some minutes afterwards, been found far below what I had at first supposed it; & this led me either to forego this examination until after other symptoms had been considered, or repeat it again after a sufficient time had elapsed to obtain its true indications. The countenance, attitude, voice &c of the patient may be studied while our conversation is going on, & the deviations of the first from the healthy aspect should be carefully noticed, as many diseases are attended with peculiarities of countenance so striking, that they are often easily recognised by the observing physician. The outward appearance of the patients body should be also noticed; the degree of emaciation, & more particularly the colour of the skin; as this when compared with the frequency of the pulse & respiration may afford

as valuable indications of the nature & seat of the disease. The various regions of the body should be carefully examined & more particularly in diseases of an obscure or chronic character. In some general maladies, such as scurvy, syphilis, scrofula &c the ecchymoses, glandular indurations, eruptions, blotches, ejectoses & nodes, may afford important diagnostic evidence & old cicatrices, more especially when seated along the neck or in the groin, merit careful attention; the first affording good indications of a scrofulous diathesis & the latter of a syphilitic taint. The existing disease for which the physician may be called to prescribe, may be in some way connected with these constitutional taints & as patients frequently elude enquiry on this subject & endeavour to conceal the fact of their having been affected with such a disease, these old marks or cicatrices when present, are sometimes of essential service in arriving at satisfactory conclusions in the case before us.

In questioning our patient, it is of some consequence to adopt a systematic & methodical mode of investigation, or important questions may be forgotten & others unnecessarily repeated. I pursue the following order of enquiry (for which, I trust I shall not be accused of plagiarism, when I acknowledge myself indebted, together with numerous other hints, to various medical works) I subjoin as

appearing to me as good or better than any I could select. First, ascertain the age, occupation & if unknown the place of residence of the patient. These through immaterial questions in many cases yet in others may have an important bearing on the diagnosis & lead us to those correct conclusions which we might not otherwise obtain.

Secondly, ascertain at <u>what time</u> the disease commenced, whether it came on gradually or suddenly & what the patient ascribed it to; whether the present symptoms differ from those of an earlier period; whether the former or present symptoms were or are now continuous or paroxysmal, constant or occasional, uniform or attended with exacerbations & remissions; if during the course of the disease new symptoms have supervened differing from the previous ones, or former ones disappeared; and if so, the accurate nature of those symptoms, & whether the permanent ones have increased any in violence since their first appearance. These are important because the succession, progress or change of symptoms, frequently more clearly define the disease, than those which may at the time be present. The physician is unfortunately not <u>always</u> able, however, to ascertain these points, from the inability of many patients to afford the desired information, & his only resource, therefore, in such cases, is to draw his conclusions from <u>visible effects</u> which

may be produced on the system of the patient.

Kindly, the patient may be asked, if he feels pain or tenderness in any part of the body, & if so where located; being directed to place his hand on it; but the mere naming of the part may lead us into error, as patients sometimes locate pains in the stomach when if asked to point there out they will place their hand on the sternum, mammae, or over the bladder or uterus. We should also ascertain the nature of the pain; whether dull & heavy, acute & piercing, stinging or burning, constant & steady or variable, throbbing or intermitting; whether fixed in one part or roaming to different parts, whether deep seated or superficial & if periodical whether returning at marked intervals or being unlimited as to time. Pressure may be made over the seat of the pain & its effects should be carefully considered. It will also be necessary to observe, when it can be done, whether the part is swollen or discoloured or varying in any manner from a normal state. It is particularly necessary to ascertain in many obscure cases, whether there is tenderness on pressure in particular parts of the body, more especially in the region of the stomach, liver or bowels, even though pain may not be present, as the latter particularly, often produces sympathetic cerebral affections which might be easily mistaken for organic disease

of the brain did we pursue the enquiry no farther than mere appearances indicate

Fourthly, the pulse may now be examined & in doing this & in order to judge of its indications, we should take into consideration the time of day, temperature of the air of the room in which the patient may be confined, corporeal exertions, position of body & mental emotions or impressions. The pulse is usually slower in the morning than the after part of the day, whether in health or disease, & from the requisite muscular exertion to maintain an erect position, more rapid when standing or sitting than while lying down. Patients too who are worn down with a disease which may be dangerous, or which they have taught themselves to believe is so, usually experience much nervous agitation in the examination of their diseases, which may not subside until the opinion of the physician is learned, & this fact alone may lead to a wrong estimate of the pulse unless duly considered. A more transient examination of the pulse too, may not afford us any satisfactory or just conclusions, & from 30 to 60 beats should be counted before the fingers are taken off, where any doubt is felt as to the disease, for it is not uncommon in certain obscure cerebral affections to find an intermission in the pulse even after 30 or more beats.

Lastly, after satisfying ourselves as to the nature & indications

of the pulse, the attention should be next directed to the organ or part in which we may have reason to suppose the disease may be located, or which may be the seat of sympathy with it; And if the patient complains of pain in the head, after ascertaining its nature, the state of the alimentary canal should be ascertained - If the pain is located in the forehead we may suspect some derangement of the stomach or intestinal canal; But if in the back part of the head & extending to the temporal region, the spine should be carefully examined about the cervical or upper dorsal vertebrae. A slight inflamation at the root of a spinal nerve arising from a sudden cold or strain, or both, may shew itself only by pain at or near the extremity of such a nerve, & these pains when appearing in the back part of the head, the side or lower part of the sternum, more particularly when intermitting or moving about, may be suspected to have their origin in inflamation of some of the spinal nerves which may be distributed to, or connected by sympathy with the parts. So also this disease, when located in the lumbar vertebrae, is characterized sometimes by numbness of the outer sides of the thighs or a sensation of coldness in that region, pain or numbness in the heel or toes; or when higher up by a sense of constriction in the region of the diaphragm as if a cord

more drawn around the waist; a tenderness of the sternum &c. If therefore such pains are unattended with any other manifestations of disease in the part where located, if intermitting or occasionally changing its position; if there is neither inflamation there, redness, hoarseness or tenderness to pressure, we may presume without much doubt on its origin from the spinal nerves, which if our diagnosis is correct will be confirmed by a careful examination of the different vertebrae

Again, if there is a fixed pain sitting in the lumbar region, the question of its being located in the kidneys may be determined by ascertaining the state of those organs which sympathize with them, viz, the stomach, ureters & testes. If the testes are retracted, & there are pains shooting down the ureters, with nausea & vomiting, the evidence of its being a renal affection may be considered as pretty conclusive

Many diseases which appear to be of a general character, combining as they do much functional derangement & being rendered difficult & obscure, in the distinction of which are causes & which effects, may nevertheless by close observation be often traced to local or simple affections; and although the diagnosis may be rendered extremely difficult at first, yet the effects of remedies, if watched, may materially assist in ascertaining the cause & source of the disease. Inflamation of some portion

of the alimentary canal, frequently attends general diseases, but with symptoms so slight, that they may often escape the attention of even the most careful observer. Particular attention should therefore be paid to the tounge, the alvine evacuations, the effects of food, from pressure on different points of the abdomen, the state of the skin, & if the disease is of a chronic character, the state of the patients mind & temper; That is, to see if the tounge is red & of a papillated or granular appearance or smooth, if irritating or solid ingesta produce pain or distress or tormina or soreness of the bowels; If pressure on the abdomen produces pain; If the skin be dry & harsh, & if the temper is irritable, morose, gloomy or taciturn.

The appearance of the tounge although considered by many as an unimportant diagnostic mark of disease, is yet of much importance, & without its aid we should many times be in absolute doubt, as to the nature, or precise location of certain inflamitory affections. In its examination particular attention should be paid to its colour, form, surface & mode of protrusion. In the simple forms of fever (according to Dr. Hall) unattended with inflamitory irritation of the mucous membrane of the stomach, "the tounge has a slight

coating of white fur; It is however rarely attended with dryness, & does not indicate generally much gastric derangement. But if it changes from this to a clear & deep red appearance, being at the same time either smooth or rough, we may usually infer with confidence that inflamation has supervened in the mucous membrane of some portion of the alimentary canal. In dysentery, we generally find the point & margin of the tounge, of a deep red appearance, while the centre is loaded with a streak of dry brown fur; & more particularly in the chronic form of the disease. In chronic gastritis & enteritis, the tounge almost uniformly exhibits a dark red appearance; in some cases rough & granulated & at others smooth & glossy, & sometimes extending over the whole surface. This is generally the case, when the inflamation is seated in the stomach. When however the inflamatory irritation is located in the mucous membrane of the colon, it is said these appearances are confined to the tip & margins of the tounge.

In fevers depending on acute inflamation which is not seated in the mucous membrane of the alimentary canal, the tounge rarely exhibits any prominent deviations from its natural state, being in fevers arising from wounds, gout,

or external phlegmonous inflammations, merely covered with a thick white fur, & more than usually dry. In the commencement of typhus fever, the tounge is coated with a white fur as in common synochus, but differs from that in the simple form of fever, in being covered with a thick layer of transparent tenacious slime, which as the disease advances, becomes dry, then brown, & finally almost or quite black.

The distinguishing mark which the tounge affords between tubercular phthisis & hectic fever with cough, from gastric disease, is, that in the former it retains very nearly its natural appearance; while in the latter, it is always more or less coated with brown fur, & accompanied with a bitter or depraved taste in the mouth.

In the early stage of Chlorosis the tounge has a "pale & tumid appearance, with enlarged papillae"; but as the disease advances it becomes gradually "pallid, clean & smooth, & finally assumes a peculiar flabby & semi-transparent appearance". The gums & palatia too are pale, bloodless & frequently slightly swollen. In acute dyspepsia (says Dr Hall) "The tounge is in general loaded, the mouth clammy, the taste bitter or nauseous, the breath foetid, while the surface of the face is generally oily. In some severe cases, the coat on the tounge is very

which & eventually peels off, leaving its surface smooth, red & tender, attended with an academatous appearance of its substance. In very protracted & severe cases of dyspepsia, the tounge is apt to become clean, with universal enlargement of the papillae over the surface, as in the beginning of Chlorosis, or its surface is formed into lobules resembling in form those of the base of the cerebellum". A contracted & pointed tounge is said to be a common attendant on inflamatory affections of the brain & its meninges. This is often to be observed in severe cases of Typhus & when occurring, there is generally found associated with it other indications of Cerebral inflamation, red & prominent eyes, delirium flushed cheeks &c. "In fevers, attended with stupor or general torpor depending on congestion the tounge" (instead of being contracted & pointed) "presents a dilated & flabby appearance". This state of the tounge is seldom accompanied by delirium, but there is usually a general diminution of sensibility & irritability, as well as of muscular power, & the temperature of the surface. This appearance of the tounge is mentioned as one of the most constant attendant symptoms in Typhus syncopalis.

The tounge covered with yellow or yellowish brown fur attended with a bitter taste, indicates permanent derangement of the biliary organs & a tremulous tounge is generally one of the first symptoms of the passage of a

milder grade of fever into the typhus or low state.

Dr. Bateman states, that Scarlatina may be distinguished, in its early stage from measels, by the protrusion through the white coating on the surface of the tongue of numerous red papillae.

The Countenance, as has been before noticed, affords many times striking diagnostic indications of disease, & its appearance has been variously noted by physicians almost since the profession of medicine became a study. Pain, whether from spasm or inflamation, always produces its peculiar contraction of the muscles of the Countenance, & is so characteristic that it has been said an experienced observer may nearly always not only interpret it correctly, but actually locate the disease, from the peculiar language of its expression in the Countenance. Thus, when the diaphragm is inflamed, it is said to give a peculiar grinning expression to the face (risus sardonicus) when if we judged merely from the pain we might suppose the disease located in the stomach, liver, or spleen. So also pain from inflamation of the mucous membrane of the alimentary canal may give an expression of gloom, discontent & melancholy to the Countenance, particularly when the stomach & duodenum are affected. If the lungs are the seat of pain, there is anxiety depicted in the Countenance, with an unusual expansion of the nostrils during inspiration, & this may occur in consequence of a congested state of these organs even when the pain is hardly felt.

It is said also, that the more acute the pain is in thoracic inflamations,

the more contracted, generally, will be the features. In addition to this, there is sometimes a livid flush on the cheeks, terminating abruptly & bounded by a very pale streak towards the nose. In great difficulty of breathing from a congested state of the lungs, the countenance, together with the expression of anxiety, becomes sometimes suffused with a dark livid hue, accompanied with turgidity, from imperfect aeration of the blood & in many cases it is said, assumes an of either great sanguineous congestion, or serous effusion into the organs. This is considered more certainly the case if with these indications the surface of the body is found to be below its natural temperature.

The delicate paleness of the face, the hectic flush on the cheek in the afternoon; The clear pearly whiteness of the tunica albugin-ea; The quivering motion of the lips & chin in speaking; are well known characteristic marks in the countenance, indicating the presence of tuberculous Phthisis.

In inflammation of the abdominal viscera attended with severe pain, the muscles of the face are continually contracted; The features are unnaturally acute; The forehead wrinkled & brows knit; The nostrils acute & drawn up, showing deeply marked wrinkles passing obliquely downwards from them, The upper lip is drawn upwards & the lower one frequently downwards, exposing the teeth, & these states are all aggravated by an increase of the pain. When however

these affections arise from spasms, producing pain in the abdomen; the countenance passes to a state of placidity during the intervals of rest. In anginose affections of the heart, the prolabia are more or less livid, the face aedematous or puffy & of a peculiar dingy hue or livid flush, & this may distinguish these affections from hydrothorax; the latter being attended generally with a pale or pale livid countenance, instead of the vivid flush so common in cardiac disease.

Chlorosis is attended with a peculiar & characteristic appearance of the countenance, & not easily mistaken by the observing. Its incipient stage is marked by paleness of the complexion & a bloodless appearance of the prolabia, with slight turgidity of the face or fullness of the eyelids. In some instances there is a tinge of green or yellow in the pallor of the countenance & the eye lids are of a dark leaden hue; & in a still more advanced stage of the disease, the prolabia assumes a lilac hue & the integuments a puffy & turgid appearance.

In the more chronic forms of the disease, the countenance becomes sallow or of a dingy paleness, with a blue or dark coloured ring surrounding the eyelids & extending towards the temples or cheeks; & in some instances a similar discoloration surrounds the mouth. This sallowness or jaundiced appearance resembles somewhat, that produced by jaundice

or other biliary affections, but is easily distinguished from the fact, that in jaundice the tunica albuginea has the bilious tinge also, whereas in Chlorosis this characteristic is wanting, & the tinge of the complexion has a cleaner & more transparent appearance.

Dr. Wolff asserts that in the hydropic stage of chronic or sub acute peritonitis, "the skin at the root of the nose immediately between the eyes, acquires a sensible or bloated appearance, by which the general expression of the countenance is strikingly altered", & this singular trait or absence, is one of the most constant & certain diagnostic signs of the disease, after serous effusion into the abdomen has commenced.

It is said also that chronic disease of the spleen is in ~~accord~~ every case, attended with a peculiar bluish tinge of the tunica albuginea.

I pass in the next place to review some of the diagnostic inferences, which may be deduced from some of the attitudes & motions of the patient, when contrasted with those which are assumed in a healthy state of the body; & as the position of the body whether in health or disease, usually conforms to that which appends the most ease, much may be learned in disease by these peculiarities. The dorsal position when attended with twitchings of the muscles or tremor of the extremities always indicates great muscular debility, & when the patient assumes this posture in the progress of a continued

fever, with the inferior extremities extended, we may suspect it to be indicative that the disease is approaching the sinking or typhus character. This is said to be still more decidedly the case when in connection with these, there is a tendency of the patient to slide down towards the foot of the bed. In a very debilitated state of the system, there is not muscular power enough to maintain the lateral posture of the body & if the patient be placed in any other than the supine, he may soon regains it again, as being that which requires the least muscular exertion. It is said that "when a person, affected with fever, lies on one side with the legs slightly retracted, he may be regarded as not in a very dangerous condition."

In diseases of the Chest, the position of the patient is often highly characteristic. In Hydrothorax, he usually requires the head & shoulders to be considerably elevated while in bed, & when out of bed, "sits with the arms placed along the sides, & the hands fixed & pressing forcibly on the chair or whenever he may be placed, or leans a little backwards, still supported by the arms & hands which are placed behind him". This posture is often constant, or if disturbed by any accident immediately resumed". It becomes, however, more & more varied as the disease progresses, the head & shoulders requiring to be more

& more elevated while in bed, until at last he is frequently unable to remove them & is obliged to sit up with the legs hanging down. If this disease becomes associated with organic affections of the heart or lungs, it becomes almost impossible for the patient to take any other than this erect position. In simple hydrothorax, when the dropsical effusion exists only on one side, the patient is said "to lie on the affected side," while in the recumbent position.

Inflammation seated in the abdomen & attended with acute pain produces a characteristic position of the body which is easily distinguished from spasmodic pains of the stomach & bowels. In the former the patient "lies on the back, with the knees drawn up, & the head & shoulders raised with pillows, so as to relax the abdominal muscles & remove the pressure from the inflamed viscera." & all the necessary motions of the body are performed with caution, change of posture being carefully avoided. In spasmodic or colic pains, the patient writhes about & often lies on the abdomen or presses the hands on the bowels.

If the inflammation is seated in one of the kidneys, the patient when in bed "inclines his body a little forwards & towards the side affected." This position relaxes the muscles of, & diminishes the pressure on, the affected part. When in the advanced stage of low fevers, attended with delirium, the patient is observed to keep "the lower extremities drawn up while recumbent on the back," . . .

retention of urine may be suspected, & this indication in low typhoid fevers, where the patient is unable to describe his sensations, is frequently the only one we may have of such a difficulty.

In most instances of inflamation of the liver, the patient cannot lie on the left side, without great aggravation of his sufferings. This symptom is not always present in hepatitis, & when taken alone, cannot be relied on as decidedly indicating the disease. When however it occurs in connection with the other symptoms of that disease, it is no inconsiderable evidence of the existence of this affection.

The next class of symptoms, which I have selected for consideration, are those manifested by the nervous system. Disturbed sleep may be considered among these as the earliest & most common symptom of deranged function of the brain; and one of the first symptoms in the diseases of children, to awaken alarm & suspicion of disease within the head, is an unusual state of drowsiness, more especially if with it, there is a disordered state of the alimentary canal & febrile irritation. Profound morbid sleep or coma, always indicates under almost any circumstances, cerebral disturbance from congestion, effusion, or disorganization of cerebral structure. Wakefulness is indicative of cerebral irritation or exhaustion & is apt to occur in intestinal irritation or exhaustion from loss of blood by sympathetic excitement

of the brain. When dependent on these causes, it is usually attended with restlessness or jactatation, a feeling of anxiety in the region of the heart, & a pale & contracted Countenance; Sudden Starting during sleep, may be connected with intestinal irritation from indigestion, worms or accumulated faeces. In organic affections of the heart, in hydropericardium, & frequently in Hydrothorax, similar Startings from sleep may often occur, but are said to be "always attended with a distressing sense of suffocation or impending dissolution, producing great agitation & alarm".

"Acuteness of hearing & sight, occur, (says Dr Hall) in the incipient stage of cerebral inflamation, but they are equally & often more strikingly presented, in sympathetic irritation of the brain, from intestinal irritation accompanied with effusion." It may be generally said also, that when the senses of sight & hearing are morbidly acute, with great intolerance of light & sound, the brain is in a state of irritation, whether sympathetic or idiopathic. Obtuseness of hearing is comonly seen in the advanced stages of typhoid fevers, indicating sanguineous engorgement, but not inflamation of the brain.

Morbid sensations being among the most common phenomena of diseases, their characteristic modifications & varieties are of much importance in diagnosis. In strumous disease of the mesentery, it is said that an unusual sensibility to cold constitutes

a peculiar & early symptom; the patient being greatly annoyed by the least draught of air & in cold weather "drawing near & hanging over the fire until the hands & legs assume a brownish colour from the effects of heat." The sensation of pain may depend on inflamation, spasm, or as has been before observed, nervous irritation, & each having a peculiar character by which it may be distinguished. The pain of inflamation is usually attended with great soreness or tenderness of the affected part; increased by pressure; generally continuous, & always attended with more or less febrile irritation. Spasmodic pain on the contrary, is intermitting, neither throbbing nor burning like inflamation, nor attended with redness, swelling, augmented heat, or febrile excitement. Pressure also, contrary to the inflamatory, mitigates the spasmodic pain.

It is said, also, that the character of inflamatory pain is modified by the nature of the structure in which the inflamation resides. & this circumstance undoubtedly arises from the fact that each structure of the animal system is endowed with a peculiar modification of the vital properties. In the mucous membranes for instance, inflamation is said to be attended with a "burning or stinging pain & is seldom very violent." In the serous membranes, the pain is "lancinating & generally very acute;" In the fibrous tissues "dull aching & gnawing;" In the nerves "rapid, darting, remitting & acutely severe;" & in the parenchymatous & cellular

structures "dull, heavy & throbbing". Thus in inflamation of the pleura the pain is acute, piercing, & generally extremely severe; while in that from inflamation of the substance of the lungs, is dull pressing & generally inconsiderable in violence. The pain attending inflamation of the mucous membrane of the stomach, is of a burning, gnawing, or stinging character; that attending inflamation of the liver is "acute, throbbing & generally accompanied with a sense of fullness & tension in the right hypochondrium & epigastrium".

In many instances, pain is referred to a different & remote part from that in which the disease may be located. As for instance irritations of the neck of the bladder, will frequently, produce pain in the glans penis; Inflamation of the liver often causes pain in the right or left shoulder, & the hip disease is attended with severe & protracted pain, in the knee & leg & in many cases this is the first symptom noticed, even long before the disease shows itself in the hip.

The morbid conditions of the respiratory functions, I am satisfied will afford important & indispensible diagnostic distinctions in disease, but as I have not yet been able to examine this subject as fully as I could wish, I pass hastily over it, merely adverting to some of its most prominent indications.

"Whatever (says Dr Eberle) obstructs the functions of the brain, or interrupts the nervous communication between it & the respiratory apparatus, impedes or destroys the function of respiration,

& the slowness & irregularity of the respiratory acts, will be in pro-
-portion to the degree in which the functions of the brain are affected."
This may undoubtedly be so, but is not deranged respiration usu-
-ally accompanied with a corresponding pulsation, whether the cause of
congestion or obstruction in the functions of the brain, therein the latter
of the former? In Pneumonia breathing is frequently performed
by the action of the diaphragm alone, without the ribs of the affected
side being perceptibly elevated or depressed. "In abdominal
inflammation, respiration is performed almost entirely by the
action of the intercostal muscles." In inflammation of the paren-
-chyma of the lungs, or of the mucous membrane of the lower
part of the bronchial tubes, respiration is performed with great
difficulty & in an anxious & hurried manner; probably
resulting from the fact that one lung alone acts, being
required to aerate the same quantity of blood which was
previously done by both. The manner in which respiration
is performed in the diseases of Children affords an important
diagnosis, which we could not otherwise, in many cases,
obtain. When with more or less cough the inspirations are short
& catching particularly if the countenance at each inspiration
exhibits an expression of pain or suffering, the existence of
pectoral inflammation may be inferred. "If the countenance is

hale & the breathing wheezing & laborious, the inflammation is probably seated in the mucous membrane of the bronchiae". In organic disease of the heart frequently manifests itself by laborious & anxious breathing on slight muscular exertion as walking up hill or ascending stairs & differs from the dyspnoea excited in Asthma by, the former recurring more frequently, from the causes mentioned, in milder paroxysms, & with more sudden violence than in the latter disease.

From the close connection which cough has with disturbed respiration, or diseases exciting dyspnoea, it may be well perhaps, to consider some of its peculiarities in different diseases. Thus, in inflammation of the pleura, lungs, or peritoneum, the cough is always repressed as much as possible, in order to obviate the great increase of pain, which it produces in these cases. The cough accompanying acute inflammation of the "mucous membrane of the bronchia has a duller sound & is attended with more mucous rattling in the chest, than that resulting from acute inflammation of the pleura". In the latter stage of the latter disease however this distinction is lost. Cough depending on gastric or intestinal irritation, it is said, "is generally attended with a peculiar hollow sound & is frequently met with in children labouring under vermicous irritation". Phthisis laryngea, & Phthisis Pulmonalis, have

their peculiar cough, it is said, by which they may be readily distinguished. In the former the cough comes on in the morning, on rising from bed, in violent spasmodic paroxysms; while in the latter it is much less sudden & severe in its attacks, & is "devoid of the spasmodic or convulsive efforts" of the former. In laryngeal consumption, "the cough has a deep hollow sound" somewhat resembling that produced by membranous irritation; whereas in pulmonary consumption, it has a "flattened & lacerating sound." In the former too, "violent fits of coughing are produced, when the patient passes from a warm into a cold air, by inhaling smoke, dust or irritating fumes, & often by swallowing food." In the latter disease there comes rarely acute coughing & when they do, it is very slight & of short duration.

H. Eugene Dibble

VIII.

Dissertation on Lithotrity.

By

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Candidate for the Degree of Doctor in Medicine.

The march of science is onward; each advancing year produces new discoveries, inventions and improvements, which prove a benefit and blessing to mankind, and this particularly is the case in that department termed surgery. Discoveries and improvements are constantly being made by which the sufferings of humanity are alleviated or entirely ameliorated. Let us for a moment glance at the state of surgical science as it stood a few years since and compare it with its present advanced condition. We find ligatures have taken the place of the burning iron for the subdivision of hemorrhage. Instead of amputation for the cure of aneurism a the upper part of the thigh, which extent, a simple ligature upon the artery above the disease is found to be all sufficient and beneficial. Formerly an operation of every day occurrence is now comparatively rare. The cruel, painful and dangerous operation of lithotomy, is gradually being superseded by

ine mill and almost unattended with danger.
Twenty years ago the Gorget was the only remedy for stone in the bladder, an operation attended with the most recent pain and placing the patient in the most imminent danger of life. Now the stone is crushed and made to come away by peace meal, and it is upon this improvement in surgery that I propose to address you at the present time. In the year 1820, Civiale, a French inventor, invented some tender and delicate forceps to seize small stones in the bladder and extract them through the urethra, but these were not found to answer a good purpose and applicable to few cases such as where the stone or stones were not too large to pass through the urethra. They are useful when small fragments are lodged in urethra. In 1824 Mr Weiss invented instruments under the Civiale invented an instrument for crushing the stone but its construction was crude and in vitro and soon fell into disuse. About the same time M. Civiale of Paris gave lithotrity a new impulse

by the construction of an instrument consisting of a canula with three steel branches which when thrust out would grasp the stone and hold it firmly to be acted upon by drills set in motion by a bow. This apparatus was found to answer better than any of the preceding but was still imperfect and failed in a majority of cases in which it was used. Civiale's instrument was greatly improved by Jarvan Heurteloup, which rendered it exceedingly complex. but with Heurteloup's improvements it could not act upon stones to exceed eighteen lines in diameter. Still with this disadvantage it was a valuable acquisition to science. In 1832 B Heurteloup constructed an instrument upon an entirely different principle from any of the preceding and with some slight improvements is the only one in use at the present time if we except Jacobson's of which I shall speak presently. Heurteloup's instrument as now used consists of three pieces. first a steel staff, straight except at the end, which is bent so as to form an angle of from fifty to sixty degrees and has a hole in the

in length. Through the anterior portion of this staff is a circular groove or channel extending its whole length and forming about three fourths of a circle except at the lower portion where it is made square and somewhat larger. Into this groove fits a smaller staff, made to fit accurately, with, made to fit the square channel in the anterior portion of larger staff. At the upper extremity of this larger staff, is a circular plate about one and a half inches in diameter with its edge round, to be held near firmly when the screw is used. Above this plate the staff is threaded for several inches, on which slips a nut with three projecting ears to turn it by. On the smaller staff near the plate is a small projection against which the nut plays to force it down. The above instrument can be used either with the screw or hammer and is decidedly the most perfect contrivance of the kind ever invented. The smaller staff being pushed down accurately fills the channel in the larger and makes it now one perfectly smooth cylindrical staff. The mode of using it is as

follows. The patient being placed upon his back with his shoulders elevated the instrument being well oiled is passed to the bladder similar to the catheter, care being taken not to injure the soft parts, the jaws of the instrument not to be separated until its rectal portion is within the cavity of the bladder; then by moving it downwards, it answers the purpose of a sound the situation of the foreign body may be accurately discovered. Then by throwing back the nut and carefully withdrawing the smaller staff, its bent portion readily bends into straight and, when sufficiently open the stone readily between its jaws. By means of the nut at the other extremity, the jaws are forcibly approximated and the intervening stone broken, or if instead of the screw being used a few light taps with the hammer produces the same effect. By repeating this operation as many times as may be required until calculus is small enough to pass through the ~~urethral~~ canal. Before withdrawing the staff its jaws should be accurately together otherwise the calculus not being

through the urethra. The above operation is equally applicable to large and small stones, thus giving this instrument an senior advantage over any other. Jacobson's instrument consists of a silver cannula through which passes two steel rods, the posterior moveable, the anterior firmly attached to the cannula with its inferior extremity bent inward to form a bellows. The posterior rod terminates in a crank, the end of which is attached to the extremity of anterior rod. The posterior rod is a little longer than the other with a small ball upon its end that it may be more easily managed. This instrument is introduced similarly to the one above described, the situation of the stone being ascertained, the posterior rod is thrown down causing to recede from its antagonist, leaving a space into which the stone falls, then by means of a screw at the opposite extremity the strain is brought against the anterior rod crushing the stone. In repeating this operation each fragment may be made to pass through the urethra without pain to the patient

After the instrument is withdrawn, the varicosity and debility usually compel to enter the urethral canal usually passes away. Here the patient generally urinates, and this if possible should always be done while the patient is standing, and then the fragments will enter the canal by their own gravity and be passed out by the flow of urine. Under such circumstances will be found useful in extracting such fragments as remained in the urethra. Having spoken of instruments, mode of operating &c. we now proceed to point out some of those cases in which Lithotrity is not advisable, and where some other mode of relief must be resorted to, and these contra indications I shall speak of under three heads. 1st some in relation to the size of the instrument 2nd excessive irritability of mucous membrane of bladder and urethra, 3rd constitutional symptoms. 1st an impediment to the passage of the instrument. 2nd this may occur either from stricture or enlargement of prostate, both of which are common. Of the first certain strictures or such as may easily be dilated, thus

may be treated in the usual manner until extracted
as above already the instrument. A succession of strictures
sometimes occur throughout the urethral canal inducing
pain and of an almost entirely hardening, and
overcome only by long and continued use of bougie
caught be, the state of urine would be an insurmountable
objection to lithontrity, or deposition of minute reduced
would pass under the bladder irritation caused
by the stone and the means taken to remove the
structures, inflammation and inconvenient, the
surgeon may prevent the introduction of the forceps
if it does not interfere with the image the pain
and irritation caused it to cease and induced
for the patient to endure 2nd excessive irritability
of mucous membrane lining the bladder and urethra
when this state of irritability occur the lightest
touch of the instrument produces exquisite
pain, so severe that the most docile patient
will resist and the surgeon will be under
the necessity of resorting to other means for the
relief of his patient unless the excessive irritability
can be reduced, which should always be attempted

by injections of Nitrate of silver in solution made of the strength of two to three grains to the ounce of water, opium enemas will be found useful as also will warm hip baths, and I may here mention that the warm hip bath is often useful in a healthy condition of parts where the patient being exposed for some time to a temperature considerably below the natural warmth of his body the bladder and urethra contract, the urethra frequently to such an extent as scarcely to allow the smallest sized instrument to pass. Here the warm bath relaxes the parts and allows the passage of the smallest staff with ease; it is indeed surprising to observe the irritability of the urethral canal after the use of the semicupium and I may ~~here~~ add that the surgeon should be provided with instruments of different sizes to suit different sized urethras and the same urethra at different times, for it will often be found that after introducing a large instrument, the surgeon in attempting to repeat the operation subsequently finds himself under the necessity of using one of smaller size. —

3rd Constitutional symptoms — In advanced cases where the patient has become excessively reduced by long and continued irritation caused by the stone, where the whole system is irritable accompanied with hectic symptoms, the calculus cannot be taken without greatly increasing the irritation and perhaps extinguishing the last spark of excitability remaining in the system. In such a state of parts the knife should be used if there is any prospect of the patient being able to endure it, as then the cause of the disease is at once removed. I do not know as any correct statistical account of lithotrity has been made. A distinguished surgeon of our own country whose experience in lithotrity has been extensive, states, as the result of his experience, about three cases out of ten require the knife. This with our present knowledge of lithotrity may be considered as nearly correct. Some patients have a great repugnance to the knife, yet know of no other means of relief by which their sufferings may be alleviated. They are therefore induced to defer the operation

until the agency of the lithotrite proved them to be cut for stone an operation before upon whereas did they know of lithotrity, did they know the stone could be broken and passed by urination they would be induced to submit to the operation when the first symptoms of calculus appear, when it is small and easily crushed. Then would they be relieved of long and continued suffering and avoid one of the most painful and dangerous operations the surgeon is ever called upon to perform. "Lithotrity is less formidable to the patient than lithotomy. It requires little or no confinement and many individuals will be induced to submit to it at an early age who would not muster courage to submit to lithotomy until their sufferings had become excessive, and circumstances arisen to render the operation dangerous. There is no danger of hemorrhage nor of those ill consequences which arise from an incision or laceration extending into the cellular tissue around the neck of the bladder." Lithotrity

is far from being a simple operation, one that can be performed by every interloper to money. Its performance is also difficult and in unskilful hands highly dangerous. Those who are successful in that branch of surgery must understand all the healthy anatomy of the bladder, its various morbid and pathological changes. In such cases lithotrity is likely to supersede almost entirely, ~~in a few years~~, the cutting operation for stone. It must be remembered that lithotrity is not in its infancy, that it also has to contend with the prejudices of ignorance and self interest; that like all other great and brilliant discoveries, meet with opposition from those who, through indolence or inapacity, are unwilling to acknowledge its merits, from those actuated by unconsidered motives, and who think in all cases the "old fashioned way" the best. Such will not acknowledge its claims to notice until forced to do by universality of opinion. It advocates

are yearly increasing and of position that will
melting away under the brilliant results of
experience

Christopher Smith Penna
January 18th 1844

IX.

Dissertation on Chorea.

By

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Chorea consists of tremulous, jerking motions of the voluntary muscles, taking place involuntarily under the control of the will. The motion is more marked on one side, than the other. There is usually a great degree of torpor of the digestive actions, [illegible] complete and permanent impairment of the intellectual [illegible] ance. Chorea generally comes on gradually, [illegible] and digestive organs.

The following symptoms mark this [illegible]

The muscles are imperfectly obedient to [illegible] to perform the action willed, at the

same time the motions are feeble, and tremulous.

At first, these irregularly motions are slight, and occasional only; manifested particularly when anything occurs to agitate the mind; but, these irregularities become greater, and more constant, often greatly impeding the arms, and legs in performing their wonted movements.

A ludicrous appearance of the countenance, and occasionally a very painful one, is often the result of the involuntary contractions of the muscles of the face. The muscles of respiration, and deglutition, are at times so much affected, that the breathing becomes anxious, and swallowing is much impeded. There is an imperfect responding of the muscles to the emotions, and passions; but when the patient lies on the bed, and there is no exertion of the will, the muscles are usually at rest and quiet.

When the attack is violent, and sudden, this affection occurs by paroxysms. There is a difficulty in walking, from the agitation, and ludicrous motions of one leg; the foot turning out, and dragging

along on the ground. One arm will also be affected in a similar manner. In these cases, there may be a congestion or lesion of the spinal cord causing the irritation of the nerves.

Sometimes the disease is first manifested by a sudden jerk of the limb when there is an attempt at motion, or exertion, and it will require several trials to succeed in the operation. One leg will kick out first in one way, and then the other; and so of the arm.

There are some cases in which all muscular motion is performed in a grotesque, and ridiculous manner. The patient is considered odd, and as having contracted bad habits. Great impropriety of conduct often attend this form of the disease; but, when the disease is cured, this impropriety of the mind is cured also. Nor can this be improved by education; the mind acting in accordance with the rules of its own, formed as it were, by indiscriminate association to the exclusion of reason. In fact in general this is not considered a disease; yet it is perhaps a form of it.

This, and uncomplicated chorea, may be considered as having its seat in the brain and its appendages; and the inability of the muscles to obey the will, seems to indicate the brunt of a military insult to be peculiarly affected. There is much common to all affection in the intellectual function. Sometimes the power of attention is great, perpetual mischievous disposition is evinced, often the patient reasons acutely from his assumed premises, and adheres to his position with pertinacity. In the most severe form, this disease is apt to produce paralysis. Undoubtedly this cerebral derangement is frequently secondary, depending upon a primary irritation located in the alimentary canal, or perhaps in some other part of the system.

In its pathological character, and condition, Chorea seems to partake more of the nature of a paralysis, than a spastic disease; since it is in almost every instance, attended by considerable impairment in the muscles of voluntary motion. Chorea is liable to pass into Paralysis, and Paralysis in its gradual progress towards recovery, if it does

not pass through proper chorea, the symptoms manifested, very much resemble it. Chorea is [illegible] Epilepsy, a [illegible] supervenes [illegible]

In the [illegible] chorea [illegible] complicated, and idiopathic disease; but [illegible] unfrequently a mere symptom of [illegible]. It is [illegible] complicated with a [illegible] fever, and [illegible] disease, chorea more frequently attacks children, than adults, and those between the ages of eight and fourteen. The duration of the disease varies greatly; but, more commonly, it ceases to continue some time. It is more liable to attack the weak and feeble, and those of a [illegible] than others.

The necessity of pure and simple food is [illegible]. The more [illegible] and [illegible] the patient [illegible], and the more the mind has become [illegible], the more [illegible] [illegible] a cure. When complicated with [illegible] and [illegible], it is not [illegible]. When complicated with severe fever, chronic pectoral diseases, and with a shattered and [illegible] state of the

nervous system, the prognosis is unfavorable.

What are the real causes of this disease, are not yet well ascertained. It is commonly acknowledged that a predisposition to it is hereditary, there is that peculiar state of the system most favorable to the occurrence of the disease; usually called a nervous temperament, together with a deteriorated health, may be transmitted from parents to child. There is a very great and intimate sympathy of the nervous system, and in cases in which and in all cases, there appears to be more ~~[illegible]~~ than one, they have been ~~thought to~~ be contagious, or at least to be developed by imitation.

The principal indications in the treatment of Chorea are, 1. To increase the energy and secretion of the alimentary canal and its appendages. 2. To restore tone wherever there is want of it. 3. When it is hypertonic or complicated, to cure the state of which it is symptomatic, or with which it

is complicated, and this will seldom or never require remedies, that will be injurious to [illegible]; though they may [illegible]. From the nature of this disease as caused by the debilitated state of the nervous system, detractive remedies should be indicated, except in some of its complications.

The classes of remedies which seem most adapted to compell its [illegible] are, Anodynes, Narcotics, and Cathartics.

The state of the system, the nature and duration of the disease, and the symptoms present, must guide in the selection of the article appropriate to the particular case.

When there is a torpid and disordered state of the bowels, cathartics are beneficial, both in removing irritating matter from the alimentary canal, and in preparing the system for the exhibition of tonics and narcotics.

Anodynes are in the disease often useful. Opium is some of its forms is of great service in this disease, and perhaps is the best article in use. The tonic powers of this

remedy, must be adapted to the condition of the system. Commencing with six or eight drops of the wine of Tartar Emetic, repeat the exercise, and gradually increasing the dose and the frequency, until a moderate sense of nausea is obtained, or its toxicological effects begins to appear. If symptoms of an over dose of arsenic come on, the medicine should be discontinued for a few days, and then resumed in a diminished dose. Iron can be administered with Opium, which prevents nausea and purging, than can be given alone. It also must be tested in moderate time.

The Oxalate Ammoniatum, and other preparations of Copper act beneficially, probably by their tonic powers, and should be employed as largely as possible, and fall short of their nauseating and purging effects. In the case of arsenic, iron can be given combined with some narcotic.

Nitrate of Silver is a valuable remedy. It tends to the normal system when in a morbid condition is very great.

It may be used with considerable freedom, and its use is to be regulated by its physiological effects, and the comfort of the patient.

The Chloroform has been employed with success, where other forms and anæsthetics had proved unsuitable or their use appeared hazardous, to obtain the most advantage from this remedy, it should be given in large doses, varying from three times a day. It is easily taken by children.

Sciatica or lumbago may often be seen with the medicine especially when alone with the nervous debility. This is a remedy of tone universally.

Ammonium has been used with success and from its power of arresting disordered nervous action should prove beneficial. Probably it is most valued in those cases resembling Epilepsy.

Some of the preparations of Hypophosphites may be indicated, and the crude acetate would appear to be better than the other salts,

because more tonic. This remedy is especially adapted to the advanced stage of the disease, and by some it is recommended in the outset. To an adult from ten to twenty minims of the tincture may be given three or four times a day, gradually increasing the dose, to a child a proportionally less dose, carefully watching the effects. With an empty stomach we are more susceptible to the effects of medicine, therefore in very susceptible subjects it may be given after meals.

Cortex Cascarilla has equal concentrated more powerful and metallic tonics have failed, given in the dose of ℞ gr 20 every two hours, it may be used in much larger doses. Probably it is more useful in cases that are diagnosed rheumatism than in others. As a cathartic, Aloes and Colocynth may be given, when there is an accumulation of morbid matter in the bowels.

Elaterium also, commencing with ⅛ gr and

increasing the dose. When Chorea is connected with disease of the liver, Mercurials are indicated, and may be employed until the bowels and liver are brought into a proper state. When there is suppressed catamenia, with a leucophlegmatic habit, and tumid parts, the oil of turpentine, with blisters over the sacrum will be useful. Among other remedies said to have been successful, are the application of irritants and epispastics along the spine, and the employment of electricity in the form of sparks, to the course of the spinal column.

Many other remedies are recommended, but those we have adverted to seem to promise the most success.

X.

Dissertation on Scarlatina.

By

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Candidate for the Degree of Doctor in Medicine.

Scarlatina.

The scarlatina is probably a disease of modern origin. No mention is made of it by the ancient or Arabian authors, and the first time it was distinctly noticed was about 230 years ago. It is supposed to originate from Africa, be this as it may it first showed itself in Spain in the year 1610 from whence it spread to Naples where it raged epidemically in 1618. The same disease made its appearance in London in the year 1689 and was described with great accuracy by the Spanish and Italian authors. In 1735 it broke out in N. America and spread gradually over the continent.

The diffusion of the disease seems to be comparatively slow, it being about 125 years after it came into notice before it reached the shores of America.

This disease on its first appearance in

Europe was in a very malignent form; but about the year 1660 it was observed to be much milder, and was supposed by some nosologists to be a different disease on account of its mildness.

This disease was much more malignant forty years ago than it is at the present time, for it is stated that patients frequently died within twenty four hours after an attack.

Scarlatina appears in a variety of forms, each of which constitutes but one and the same disease, and is supposed to originate from the same specific contagion.

It sometimes appears as an epidemic and occasionally as a sporadic disease, but more commonly it appears to emanate from the influence of some specific contagion.

The virus lies dorment in the system about six days after exposure, before it develops itself.

There seems to be three varieties of this disease, the Scarlatina simplex the

scarlatina anginosa, and scarlatina maligna.

The scarlatina simplex is characterized by slight febrile symptoms, with efflorescence of the skin, and with little or no affection of the fauces, but, where the fauces are implicated, and where there is much efflorescence of the skin, and the fever is of an inflammatory kind, the disease is called the scarlatina anginosa, the third, or malignant variety of this disease is attended with extensive ulceration of the fauces, accompanied with typhoid fever, and with little or no efflorescence of the skin.

The scarlatina simplex commences with slight febrile symptoms, the eruption comes on, the second day from the begining of the complaint.

The anticipating symptoms are, restlessness, anxiety, depression of spirits, chillness, pain in the head, languor, and lassitude succeeded by heat, thirst, the skin dry and

hot, sometimes there is nausea and vomiting; the urine is high-colored and turbed; the pulse weak and varying from 100 to 120 strokes in a minute, after about two days numerous specks or minute patches, of a vivid red color are observed about the face and neck, and within twentyfour hours, alike efflorescence is diffused over the surface of the body and occasionally tinges the inside of the lips, cheeks, palate, fauces, &c.

On the limbs, and especially the fingers, there is diffusive efflorescence, but on the trunk of the body the rash is in distinct patches, of a bright scarlet, being alway more distinct about the joints, the efflorescence, spreads over the tongue, and mouth, and the papille of the tongue are elongated, and extended through the white fur.

The face is often swolen about the third day, the eruption continues three or four days, after which desquamation of the cuticle takes place.

The second or anginose variety of this disease

is attended with more violent symptoms, there is together with the eruption of the cuticle, an inflammation of the fauces appears going through its progress of increase and decline along with it.

Among the first symptoms of this variety of scarlatina is an uneasiness about the throat, the voice is thick, and deglutition sometimes difficult, the tonsils are swolen and red, this goes on to superficial ulceration.

In this form of disease the efflorescence comes on about the third day, it generally appears in distinct patches, which are scattered about the joints as in the simple form of the disease.

The eruption partially vanishes at times and then appears again.

The eruption is generally gone about the fourth day from its first appearance and then extensive exfoliation of the cuticle takes place which continues for about ten days.

It is not uncommon for patients to complain of pain in the hands about the

seventh day; after an attack of this disease

In this form of scarlatina the febrile symptoms are usually very severe and highly inflammatory, the heat of the skin is sometimes very intense. The pulse averages generally one hundred and thirty in a minute, there is an expression of anxiety in the countenance, the eyes suffused, headache is often an urgent symptom.

The decline of the disease is attended with marks of great debility, and sometimes permanent deafness is left by it.

The third or malignent variety of this disease is ushered in by rigors, faintness, sometimes delirium, or coma, a sense of heat and soreness in the throat, giddiness, acute headache, restlessness, vomiting or purging.

The efflorescence appears at irregular periods from the second to the fourth day, but is seldom permanent. The fingers are sometimes very much swolen.

In the throat appears dark sloughs, surrounded by a livid base, and accasioning

intolerable fetor, the parotid glands sometimes become swelled and are sometimes very painful. the mouth is encrusted with a black or brown fur, and the fauces are clogged with viscid phlegm so as even to suffer much inconvenience in deglutition, and sometimes threaten suffocation. the inside of the nostrils present a deep red or livid color, from which a corrosive sanies flows excoriating the cheeks and lips.

Severe diarrhea with hemorrhage from the nose and bowels are symptoms which often accompany this disease.

The diarrhea is an unfavorable symptom, and should be checked as soon as possible.

The accompanying fever is of a typhoid grade. the pulse is small and feeble, often irregular.

The only disease with which scarlatina is liable to be confounded is measles. From this it is distinguished by the character of the efflorescence, and effection of the fauces, when the two diseases take place at the same time, the diagnosis is difficult.

The malignent variety of this disease is often attended with symptoms of the utmost danger. Some die as early as the third or fourth day, others linger until the third or fourth week. The recession of this disease is an unfavorable symptom. The whole history of this disease proves that it is a disease of the mucous membrane, more than of the skin, and we may therefore estimate the danger according as this structure may be implicated. Sometimes the parotid glands become swollen and painful during convalescence.

This disease arises from a specific contagion which lies dormant about five days, generally making its appearance on the sixth day after an exposure to the disease. Infants and youth are more susceptible of this disease than those more advanced in age; it rarely attacks after forty years of age, yet all ages are liable to be affected with this disease. It has been said by some authors, that many individuals have resisted this disease although exposed

to the full influence of the contagion, but this does not prove that those persons would not have taken the disease under some one of a variety of circumstances. It has been a question among Physicians, whether this disease ever makes a second attack in the same individual, it has been satisfactorily explained however, that this does occur, and that second and even a third attack has often proved very severe, and sometimes fatal.

Scarlatina may be noticed in all seasons of the year, but more commonly in the fall. The constitution of the patient and various external circumstances tend greatly to vary the form of the disease.

The circumstances which cause the severity of this disease, and also its malignency, has not yet been satisfactorily explained, and perhaps they are really inscrutable.

The power of infecting appears to continue a considerable time after the decline of the disease, some assert that it continues two

weeks from the decline of the disease; while others consider the power of infecting to continue as long as desquamation of the cuticle takes place.

The treatment of scarlatina simplex is very simple, and we may say with Dr. Sydenham that it scarcely calls for medical aid, or treatment of any kind. When the fever is mild, in this, as well as in all other exanthems, the natural means of cure is by determining the specific poison to the surface.

In a disease assuming such different forms as scarlatina, existing symptoms must be the guide of practice. Where inflammatory symptoms are present, they are to be moderated; where the typhoid disposition is manifest, the symptoms must be supported.

Venisection is sometimes indispensible especially where the disease attacks adults of full habit of body, when there is congestion, oppression, head-ache, &c. the lancet may be resorted to as a means of relief.

Leeches to the temples are occasionally sufficient, these may also be applied to the throat with great advantage, when the swelling of the tonsils is very great.

Emetics are an invaluable remedy in every variety of this disease especially if administered at the onset of the disease.

Emetics not only tend to take off the dry burning heat of the skin by relaxing it, but they unload the fauces of the mucus and serous fluid that gorge and distend them, and they also tend directly to throw off the matter of contagion from the organs affected.

Cathartics are also used in this disease with great advantage, especially in the second or inflammatory variety of this disease, yet they should not be used so freely as to weaken the system by their violence. Calomel, as operating upon all the excretories is commonly to be preferred to any other cathartic, spec-

cially when combined with rhubarb.

Opium is used in this disease where there is much inquietude, but does not always give relief.

Ammonia is in every respect a far more useful remedy, it takes off the languor, and excites the secernants, especially those of the skin, without quickening the pulse.

The best form for use is the carbonate of ammonia, disolved in water. It is given in small doses five or six times in a day, administered in this way it has a highly beneficial, and powerful influence upon the local inflamation of the throat. Nitrate of Silver is very serviceable, especially in the typhoid stages of this disease, it gives vigor and energy to the nervous system, by taking the languor and lassitude which so often accompany this disease, it is also useful as a gargle, in the form of a solution applied to an ulcerated throat. The tincture of cantharides

has also been used in this disease with much benefit; it has been taken internally, while cold water has been applied externally.

Cold water, or spirits and water when applied to the surface of the body, is better than any other remedy, to equalize the action. Where there is much heat and dryness of the skin, cold water may be dashed against the patient, till the heat is subdued, the refreshment thus produced is almost always instantaneous, and operates like a charm. it seems not only to exhibit a refrigerent power, but it also exhilarates the patient, the skin soon becomes cool, soft, and moist.

Effervescing drinks are very serviceable in this disease where there is heat of the skin, and great thirst, also the acids either mineral or vegetable are always greatful to the patient and may be used with advantage,

Capsicum taken internally, and

employed also as a gargle, has proved to be of much service in this disease.

A gargle of port wine, or of decoction of bark with myrrh is often indicated, also the chloride of soda and lime, and a variety of other astringent, and antiseptic remedies which are in common use.

Sometimes the disease locates itself upon some of the internal viscera, as the lungs, creating more violent and dangerous symptoms, and causing not so frequently the death of the patient.

Where there is a local tendency to the chest, it may be treated by those remedies that tend to relieve the local symptoms, and determine to the surface

The warm bath has sometimes proved serviceable in this disease, also counter irritants, blisters have been resorted to in some cases with obvious advantage where there is difficult deglutition or where the head has become much affected, and

where a high degree of delirium has arisen. In the latter stages of the disease it sometimes becomes necessary to support the patient with a decoction of bark and acids, wine, opium, and aromatics.

In the convalescent stage wine, and nutricious diet may be taken, also great care must be observed on account of the tendency to dropsical swellings, a cold and damp atmosphere must be avoided.

Dropsy frequently succeeds scarlatina, it generally takes the form of anasarca, but ascities has sometimes followed this disease; it as often succeeds the mildest as the severest forms. It occurs generally about the twenty second day from the decline of the eruption.

This kind of dropsy comes on with languor, sickness, costiveness, and the urine is scanty, sometimes coagulates on heating, the pulse quick, it is sometimes attended with a bounding pulse, and a white tongue,

This specie of dropsy sometimes proves dangerous from the occurrance of coma, but more commonly from thoracic symptoms indicating effusion in the chest.

It is the opinion of many physicians that this disease, or this kind of dropsy is inflammatory, and is not owcing to debility, for it often attacks those who are strong and robust, and passes by those that are weak,

The common mode of treating this form of dropsy, is by administering purgatives and diuretics. Elaterium with manna, or Jalapa and Cream of Tartar, are valuable remedies in this form of dropsy, as for diuretics the squills, Digitalis, Spts. Nitre &c.

It appears that some cases yield to the antiphlogistic treatment while other cases require tonics and stimulents as wine, bark, and aromatics.

N. H. Johnson.

New Haven Jan. 18. 1844.

XI.

Dissertation on Cynanche Trachealis.

By
William Frederick Lacy,
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Candidate for a Degree.

Cynanche Trachealis.

The subject under consideration is of such importance as to demand the attention of every medical man, being a disease of frequent occurrence, violent and rapid in its progress and if remedial means are delayed the result is generally fatal. Perhaps there is no disease of a violent character which if attended to early is more under the command of the physician than the disease in question. This complaint has been noticed by ancient as well as modern writers Yet it has not been fully understood nor very minutely described until within a few years Why this has been the case is not easily accounted for as we may presume that the disease was as common in ancient times as at present. That medical science has advanced and is still progressing there can be no doubt Yet we gain most of our valuable information and

in fact a library would not be complete unless we had the writings of those eminent men who have for ages slept in the tomb. Most of our diseases are treated in the same manner and the same principles govern us varying only as the constitutions of men have changed since that period. Croup is strictly an inflammatory disease and according to the definition of it given by Dr Cullen consists in an inflammation of the Glottis, Larynx or upper part of the trachea whether it affects the membrane or muscles adjoining. We find this definition very defective for not only does it affect the upper part of the trachea but generally if not checked extends itself throughout the whole length of the windpipe to the bronchia and to a degree over the whole surface of the lung which is in contact with the air during respiration. The membrane or lymph which is the effect of the disease is not so firm or tenacious in the bronchia as that portion which is formed in the upper part of the trachea. The appearances after dissection as related by a medical author are these. After a child has died after an illness of four or five days there is found lining the

windpipe a white substance sometimes of considerable tenacity, varying in thickness and somewhat in density It arises at or a little below the larynx and is prolonged into the divisions of the Trachea and generally a quantity of a white fluid like purulent matter with which they are filled is seen working up from the lungs The inner coat of the windpipe to which the membrane is attached is inflamed. Generally the inflammation can be traced throughout the whole course of the membrane of the bronchia - A serous fluid fills the cells of the interstitial substance The Lungs have a solid feel from this cause and the fullness of their blood vessels There are sometimes marks of increased vascularity in the pleura pulmonalis. There is serous effusion into the cavity of the thorax and pericardium The cavities of the heart are unusually filled with blood.

Symptoms = Frequently this disease comes on suddenly and runs to its highest degree of violence in a few hours But this is not generally the case. Its approach is generally gradual resembling common pulmonary catarrh - a slight difficulty of breathing with a hoarse dry cough and a change in the voice are often

the first symptoms of its approach. The cough has a peculiar rough hoarse ringing sound which cannot fail to attract the attention of the most careless observer. It is accompanied with slight difficulty and oppression in respiration. This state may continue for several days before the disease develops its full characteristic form and violence. There is always some febrile symptoms perhaps slight from the commencement of the disease. This state is followed by more difficult symptoms. Respiration becomes painful and difficult the febrile action increases and becomes more manifest. The voice is reduced to a whisper and is often totally lost. The cough becomes more sonorous and the disease rapidly runs on to an alarming degree of violence. The eyes become prominent and the veins filled with blood - countenance flushed pulse frequent, tense and quick. the skin hot and dry and the respiration much oppressed. Inspiration at this time is accompanied with a peculiar stridulous ringing sound. At this time the cough is generally quite dry. But there are instances in which a secretion of an albuminous nature occupies the larynx and trachea from the first commencement of the

disease and it always occurs in an advanced stage of the disease. If there is no check to the disease at this time and no remedial means used, the breathing becomes painfully oppressive. The patient manifests in its actions and expression of countenance the highest degree of suffering. The eyes are half closed, the lips are livid, face white and covered with sweat; the head is thrown backwards, sensibility is rapidly diminished and the extremities are cold and clammy, which terminates the disease in a fatal manner. Such is the usual course of symptoms in this fearful disease. Yet these symptoms do not always proceed in this uniform manner for in some instances the disease commences and terminates fatally in a few hours. The ordinary period occupied by this disease is from two to five days.

Causes. In [illegible] there appears to be a peculiar predisposition to this disease, whilst others are entirely exempt. Why this should be the case can be only speculatively accounted for as we know of no cause why it should be thus partial in its attacks. Perhaps as some writers say

there is a congenital predisposition transmitted from the parents to the child. That it may depend upon some peculiarities in the organization of the mucous membrane of the Larynx and Trachea may be correct. What these peculiarities are has not as yet been determined. The period of infancy predisposes to this disease later than at puberty it is quite rare for persons to have an attack of the croup. Many writers make mention of its occurring in extreme old age. The form of the glottis or larynx in children perhaps may predispose them more to this than the adult. The sudden enlargement of the rima glottis at the age of puberty is said by many pathologists to make the patient less liable to a subsequent attack. The manner of dressing children at the present day may have some influence. Several diseases render them more liable to this disease. Exanthematous affections as Miliary fever, Scarlatina and Measles. That robust children are much more liable to this disease than those of an opposite habit. Croup is most prevalent in autumn and spring which is owing to the variable state of the atmosphere, being cold and damp at these particular seasons

a uniform temperature, whether hot or cold is the most favorable and children are less liable to an attack at such times. Sometimes this disease puts on the form of an epidemic, especially after Scarlatina and measles have prevailed and these diseases appear to leave the system in a peculiar aptitude for this disease. Persons who have had one attack of the croup are more liable to a second attack.—

The danger in this disease is owing to the extent of the inflammation which often extends down the trachea and bronchial tubes and when bronchitis coexists the result is generally unfavorable. The period at which the membrane is formed after the commencement of the inflammation is variable—Sometimes it is formed within twenty hours in other instances after several days—. Why respiration is so difficult in this disease is owing to the passages being obstructed up by the membrane and inflammation of the parts—

Croup should always be considered as a dangerous affection and likely to run its course within a very few hours. Formerly when the disease was little understood most of the cases terminated

fatally" at the present time the disease is considered more manageable from the pathology of the disease and the remedial means being better understood the physician generally combats the disease with success. The danger in this disease is owing to the extent and degree of the inflammation - The more sudden the attack and when attended with much febrile excitement and a shrill sonorous cough the danger is great. The prognosis in this disease is exceedingly fallacious when we have ground a mitigation of the symptoms a violent exacerbation may ensue and destroy the patient On the contrary when we have reason to apprehend a fatal termination the expulsion of a membrane a rapid change for the better may ensue and the patient may be speedily restored to health. Croup has been divided into three stages. The first or forming stage of the disease. At this time the affection is local and irritation has not as yet extended to the whole system The second stage is the febrile, in this the whole system partakes of the irritation. The pulse is frequent skin dry and hot, respiration hurried. cough frequent and attended with a more acute sound than in the first

stage. The third stage is denominated the membranous or fatal stage from which recovery cannot be expected

". The diagnosis of this disease is simple as there is but one disease which may be mistaken for it, namely Spasmodic or cerebral croup. From this disease it may be known by the attack of the croup generally coming on gradually with the ordinary symptoms of catarrhal affections whilst spasmodic croup comes on suddenly without previous catarrhal symptoms. When croup comes on suddenly it is characterized by febrile symptoms which are not present in cerebral croup. Croup is often attended with remissions but with no intermissions - on the contrary spasmodic croup is attended with perfect intermissions. Croup is always attended with a peculiar stridulous cough. pulse frequent full and tense and the skin has a febrile temperature except in its last stages. All these symptoms are absent in spasmodic croup. Treatment -

Croup has been treated in various ways from the fact that the disease has not been fully understood until the present time. Some have considered it as a

spasmodic disease and treated it accordingly with those medicines termed antispasmodics. This system has had its day and such medicines if used are merely adjuvants to other more powerful means. The indications when called to a case of croup are to reduce the local and general inflammatory action as speedily as possible the disease being of a violent character no time is to be lost. For this purpose the strict antiphlogistic mode of treatment must be adopted. The remedy upon which many physicians place their support for reducing the inflammation is blood letting in conjunction with external vesicating or irritating applications to the throat in the early periods of the disease and blood should be drawn to the extent of inducing syncope. This treatment is adapted to that stage of the disease when the febrile excitement is manifest and the tracheal inflammation is active and violent It is under such symptoms that blood-letting should be resorted to and is demanded only in those cases when the local and general inflammatory action is strong. when the pulse is hard tense quick and bigeny attended with a dry sonorous cough and inspiration. Under such symptoms the tendency of the inflammation is to

the formation of a false membrane in the larynx, and our efforts should be directed to reduce the inflammation below the grade necessary to its formation. After this membrane has been formed bloodletting will not afford much relief.— When the disease sets on a mild form cough and respiration are attended with a copious transparent viscid mucous secretion bloodletting may be dispensed with, and in fact some practitioners of the present day seldom or never employ the lancet in this disease but combat it with other means with equal success, among these is Antimony which stands unrivalled and in fact no medicine can be substituted for it with the same success— Antimony given so as to produce its emetic properties tends to subdue the inflammation both local and general by equalizing the arterial excitement and promoting the cutaneous exhalation, by the debility and nausea which attends its operation both before and after vomiting In children the voluntary effort to expel the tough mucous secretion is feeble but by the operation of an Emetic the necessary effort is produced which relieves the child from suffocation and respiration becomes more easy — The proper period

for the administration of emetics is said to be at that stage of the inflammation when viscid secretions appear and portions of the windpipe are clogged by them. – Many practitioners begin with emetics at the very onset of the disease with evident advantage. From the general antiphlogistic tendency of nausea and emesis we might suppose that emetics might be given with much advantage before the viscid secretions are produced and by this means prevent the formation of those secretions by subduing the local and general inflammatory action. – Many of the different emetic medicines have been given. such as Sulp. Zinc – Squills. Ipecacuanha. Sanguinaria Tart Antimony and many others.. Tart Antimony has been most used from the fact that it produces a stronger impression upon the system than any other medicine of this class Calomel is sometimes given to produce emesis which it often does although it is not generally used or claimed as an emetic Combined with Tart Anty it produces a great degree of nausea which has a powerful antiphlogistic tendency with the alvine evacuations which follow their administration – When the tracheal secretions are tough and viscid and are produced speedily and in

large quantities it often becomes necessary to repeat the emetic several times within a few hours before they have the desired effect upon the disease. After emetics have been given purgatives have been found as useful auxiliaries in the treatment of this disease. The bowels should be evacuated and kept free from offending matters for several days by giving mild laxatives. Calomel is often given with the view of producing its constitutional effects upon the system. If we consider the benefits of Calomel only to reside in this constitutional effect would physicians rely upon this medicine in a disease which often runs its course in a very few hours before this effect can be produced? That Calomel has other effects than this there can be no doubt. The nausea which it produces is of itself sufficient to render it a proper and beneficial agent in this disease. Along with the remedies already mentioned other remedial means have been used. Such as the warm bath especially when the skin is hot and dry and in the early periods of the disease. It tends to equalize the excitement as well as relax the system. Perhaps the warm bath should be used only in the early periods of the disease for in its

latter stages the skin is generally covered with profuse perspiration and the pulse is soft and weak — under these symptoms the warm bath could not be strongly indicated. Blisters and rubefacients are of much importance applied to the throat. The common blister plaster is sometimes used but from its operation being slow occupying from six to twelve hours more prompt means should be employed such as Spts Turpentine, mustard paste &c — flannel cloths wet with Spts Turpentine produce a speedy effect upon the skin and is much extolled by many practitioners — Cloths wet in hot or boiling water applied continually to the throat is a valuable remedy — There are some medicines which have been called specifics in the treatment of croup how far this is true every practitioner has his individual opinion as regards a specific in this or any other disease. Amongst these medicines is the Polygala Senecka this without doubt is a valuable remedy in certain stages of the disease its stimulating qualities render it inapplicable in the first stages of the disease where the inflammation is high with great febrile excitement after these symptoms have been subdued and there remaining a dry hoarse cough with oppression of the respiration it is

a valuable remedy — notwithstanding all the means mentioned the disease frequently runs on unchecked in its course. In this state of the disease Tracheotomy has been proposed. If this operation is ever indicated it certainly could not be in this stage of the disease when the bronchial cells the larynx and trachea are filled with a membranous secretion could be of no advantage. No person would attempt to extract the membrane from the bronchial ramifications which from the organization of the parts is utterly impossible. If tracheotomy is ever indicated it must be when the disease is confined to the larynx and trachea. The ill success which has always attended this operation renders it extremely doubtful whether this operation is ever demanded. —

William Frederick Lacey —

XII.

Dissertation

on

The true Philosophy of Medicine.

By

Austin Lord,

of South Coventry, Connecticut,

Candidate for the Degree of Doctor in Medicine.

The true philosophy of Medicine.

Medicine although it has not yet attained to one of the exact sciences, is a science, and that too of no mean magnitude. At the brilliant success which is ever attending it the world will always gaze with admiration. And it now looks, not with an indifferent eye to its rapid advancement to a higher state of perfection. Having for its aim such noble objects — administering to the wants of the sick — sympathizing with the afflicted — relieving distress — pouring the balm of consolation into the wounded heart — and in short, ameliorating the condition of a world, it rises in the scale of its existence commensurate to the importance of the object it has in view. And although there may be here and there something to retard its progress it surmounts every obstacle which tends to check its onward march. Nothing will stop it in its advancement to the most perfect state which it shall be capable of attaining. We look not here for perfection either in

morals or physics. This is not the periphery of its existence. But we do look forward to the time when medicine, with the other sciences which are now so fast and rapidly developing themselves, shall shine forth as clear and lucid as the noon-days sun, and serve as bright luminaries in the moral and intellectual world.

Of the Natural Sciences Medicine prominently stands first. All the others seem to be but its constituent parts. Chemistry although it was not formerly thought to have any connection with medicine, has now become an important auxiliary in the advancement of this science. Natural Philosophy too aids us in furnishing and illustrating some important points in Physiology. And all the branches of Natural History furnish us not only with a beautiful part of Natural Science in itself considered but as developing the various modes of life in the great variety of living beings which now exist, and also in the production of those remedies which are found in a Natural state.

But Medicine takes a wider range than this. It is the connecting link between the moral and physical world. It is influenced by some higher powers and higher motives than governs more physical matter; inasmuch as the

moral predominates over the physical in its importance and in the ultimate end of its existence. While she stretches out the one hand to receive the physical on the other it is closely connected with the moral sciences.

Medicine has to cope with the mind as well as the body. For innumerable are the diseases that arise from our busy fancy. It is ever on the wing roving, or hopping throughout the extent of Nature's dominion. Sometimes it contents itself with limited actions. At others it would circle Earth and Heaven in its rapid flight and desire to grasp at once the whole storehouse of Nature and to drink in its highest Adam more or less subject to the tyranic sway of the imagination. Exertion. When it is not checked in its unnatural exercise it either produces in the mind a feeling of its own expanding greatness; as swaying the destinies of worlds; or on the other hand it is cast down by despondency and fear. Such is the mind — a frail image. It is not so constituted that it is capable of enduring extremes of excitement or exertion. Its powers are limited and when they are over exercised are rendered obnoxious to disease. These diseases are the more fearful since they rarely yield to physical aid; and moral

treatment often, too often fails of restoring it to its former state of health and activity. It would be futile in us to tell the hypochondriac that he was not ill. The fact that a person believes himself sick is of itself sufficient to produce a serious disease. His constant apprehensions derange the powers of his body as well as his mind, and both often become a mere wreck from what at first would seem a slight and transient cause. It is interesting to note the influence that the body and mind reciprocally exert over each other during a disease of one of their functions. For the whole system is so connected together that one part cannot suffer for a length of time without the other parts of the system sympathizing in its morbid action.

Philosophy and medicine are twin sisters. Both may become powerful agents in controlling those operations of the mind which are salutary; and both when perverted can be rendered as destructive agents as can be wielded by the hands of man — the one in destroying the body, the other in polluting the soul. Hence it is the duty of the physician while he is administering to the wants of the body that he should inculcate

those principles which are salutary to the mind. And as the one is so intimately connected to the other and influenced by it, they both come within the bounds of his jurisdiction. And that physician only, acts up to the true dignity of his station, who when opportunity presents itself, does not fail to inculcate, not merely his wants as a physical being in relation to his health, administering to his wants in this respect, but also for that higher motive which should govern all our actions in relation to a future state of existence.

The philosophy of medicine is a fruitful theme for the contemplation of the physician. It opens a broad field in which he may engage with delight.

In treating this subject I shall briefly sketch what I consider to be the true system or philosophy of medicine. Time forbids my doing more. And for a moment let us cast our eye back and see how it has been in former ages. The history of medicine from its origin to the present time presents a varied condition. At times it has risen in its brightness and shed its lustre upon the world; and then again it falls and commingles with the ruins around. Formerly each system

which approached nearest to the truth had to contend earnestly for the defence of the opinions it advanced against those who opposed them, who were always ready to render unpopular, or to annihilate if possible any new theories which were at variance with their favorite modes of belief. Thus it was with Hippocrates the father of medicine. He arose as a light from among the dark mists of the age in which he lived, and shone with peculiar brightness; and although the doctrines which he advanced were not at that time generally received yet succeeding ages have demonstrated to the world mainly the truth of his opinions, and the true philosophy upon which he based the science of medicine. After him appeared Galen, a man of much learning and science. He defended the doctrines of Hippocrates which had become perverted by those who were opposed to them — doctrines which no one could willingly resist unless they purposely shut their eyes against the truth to avoid its conviction. It devolved upon Galen to clear up these fantastick notions which existed and to give all the original purity and simplicity to those principles which he was endeavoring to establish on so sure a foundation.

He labored hard to inculcate what he thought to be the true principles of medicine and effected what few could have done in his day in advancing the cause of medical science.

The discovery of the circulation of the blood created great sensations in the medical world. This theory was strenuously opposed at that time and its author was held up before the world as a traitor to the cause in which he was engaged and as endeavoring to subvert the true principles of medicine. — It was reserved for future ages to give him his just reward. —

Thus it has been until about two centuries past. Medicine had to contend with almost every thing that could effect much in opposing its progress. Since then the light of freedom has been more extensively diffused and its effects more generally felt. It burst upon the world with its enkindling light and has been hailed by mankind as a glad era in the history of the world. Science both moral and physical started up as from oblivion to attain a more complete and perfect development, and to display that true beauty which is inherent in its nature. For centuries previous to this science, the arts, literature,

and even religion were all involved in one eternal night. But the day began to dawn. Science began to emerge from this sea of darkness in which it had slept for ages. A Newton arose and put forth his giant energies to effect so glorious a conquest. It arose as on eagle wings and soon its brilliant achievments were unfolded to the world. Literature and the fine arts were als parallel to this in their advancement. And above all religion began to shine forth in all its purity and power. We may mention here a Luther. His efforts were felt to Earth's remotest bounds. Thrones and empires began to tremble lest they should be overthrown by the true principles of the gospel and their own religion should sink into ruin. Medicine was contemporary with them in its advancement. It had the minds of a Locke a Heylenhum a Willis and a Cullen of which to boast. Their names will ever grace the page of history and their memories cherished by all the wise and good. Their works are an invaluable treasure and will continue as an imperishable monument to their memory. They will live forever! and future ages will reap the benefit of their benevolent efforts. Thus these great revolutions were coeval in their advancement

and that they will ever continue to be. They are all intimately connected together, and when one begins to decline they all suffer by it but when they are all in a state of prosperity, they move onward! and like the sun shed their brightness upon an otherwise benighted world.

We will now notice more particularly the different branches that constitute this science. And first of Chemistry.

This branch of medicine has arisen almost entirely to its present state of advancement within the last fifty years. It is continually unfolding some new products or principles in Nature. And the resources of medicine are constantly augmented and rendered doubly efficient by the contributions which it receives from this science. The ancients were much elated with their success when they established these four great kingdoms in Nature. Earth. Air. Fire and water. Yet brilliant as these discoveries were thought to be at that age of the world Chemistry was but just dawning into existence. And these four divisions simple as they may appear have unfolded to us more than fifty elementary substances. The air we breathe simple and subtle as it appears is a compound substance and decompos' even by passing into our lungs during respiration.

Chemistry unfolds to us the nature and properties of medicines which are in their natural state. It also produces medicines which are entirely new by the different combinations that it forms of the various substances with each other. It detects the nature of the solids and fluids of the human body. It demonstrates to us the theory of respiration – the changes that are effected in the blood as it passes through the lungs – the inhalation of Oxygen and the escape of Carbon in the form of carbonic acid gas. It explains to us the phenomena of the production of heat – or the manner in which it is evolved in the system. Whether this be considered as a sort of chemical process or as purely vital chemistry bears an important part by the light that it throws upon the subjects of the evolution of heat in the human system and also of respiration. And in no other science whatever could we obtain a clew at very many of those important principles in the different branches of medicine but more especially in physiology which are developed solely and entirely by this science. These are but few of the means which Chemistry affords directly or indirectly to aid the progress of medicine. But we are looking forward with bright anticipations to that day when she with all the sister

sciences shall arrive to a far higher state of purity and perfection. And as they progress in this respect shall become more and more valuable in their contributions to aid the science of medicine.

That branch of medicine which comes under the denomination of Materia Medica is having valuable additions made to it from time to time both from the organic and inorganic world. The vegetable, mineral and animal kingdoms are like so many forces brought to bear upon the human system to counteract disease and also to sustain it when in a state of health.

It is now aided by Chemistry or Chemical Pharmacy. This produces new combinations and new virtues or properties of medicines both in the mineral and vegetable world. and is an important auxiliary to aid by its contributions this branch of medicine. They both have the same object viz to counteract all those diseases which it comes within the province of medicine to remedy.

Anatomy as a branch of medicine has made rapid advancement. Formerly there was great difficulty in prosecuting this study with much facility on account of the great difficulty that existed of procuring an adequate

supply of materials for the object. Superstition, moreover, to such an extent, and every thing that was dead was held in such profound veneration (even if it might be an old shaft) that it was deem an act of sacrilege to trespass upon it, or to disturb its sweet repose.

Fortunately these difficulties are now past and nothing seems to be in the way to hinder its prosecution to the greatest desirable extent. Anatomy is the structure upon which we build the science of medicine. On no other basis can it ever rest and attain so complete and perfect a system and to rise to that eminence on which it now stands, so deservedly, being admired by a World.

Without a knowledge of the human system we have no knowledge of the effect of diseases upon the constitution. For it is by this, and by this only, that the true effects of diseases are demonstrated and the changes that they produce are made clear and palpable to our view. Thus by obtaining this knowledge, and also of the effects of the various remedies upon the human system, aided by a sound philosophy, we are led to apply those remedies which are the most applicable in the particular case and which will produce the best remedial effects. Upon philosophy yields to experience and the triumph is rendered more complete.

A physician would be illy set at work who should administer remedies for a disease without having a knowledge of the nature of the disease, whether there was an atonic or enlonic state of the system, whether the vital powers ~~were~~ deficient or redundant. And it is taking a fearful leap in the dark to thus make random shots at life, not knowing whether your remedies will aid the system in throwing off the disease or whether it will hasten it on with a tenfold rapidity to a fatal termination.

It is in this manner that Anatomy throws light upon very many important points of medicine and unfolds the correct principles upon which we are to act in the application of those remedial measures which we employ in the cure of diseases.

Of Surgery it is unnecessary for me to speak its efforts are all before the world and no comment of mine can make it appear more glorious in its results.

Physiology or the science of life is constantly being more clearly and fully developed. Anatomy is its foundation. This is the superstructure.

Both Physiology and Anatomy have been equal in their advancement. Philosophy is the key stone to this science.

While all the other branches have been progressively going forward the practice of medicine has not been tardy in its advancement. This must necessarily keep pace with the others. Formerly an epidemic would slay its thousands and the people would look calmly on either as though they could do no good by their efforts to counteract it, or that it would be going counter to the will of the Deity to interfere in its progress. Even in the time of Sydenham during a season of great mortality the physicians all deserted him and he alone withstood the fierceness of the encounter. He alone has kept the glory of it.

But this is not the fact at the present time. In the language of him who addresses us upon this branch of medicine "Physicians are anxious to cope with something mighty that their achievments may be the more glorious."

That the remedial effects of medicine - its success in counteracting disease, is far greater than it formerly was is a fact capable of demonstration. From statistical accounts that have been taken it appears that the proportion of deaths has vastly decreased from what it formerly was -

and that they are continually growing less will be the testimony of every one who is acquainted with the subject.

Thus I have minutely gone over the ground that I proposed to do in showing the true philosophy of medicine and the true grounds upon which it should be based to render it effective in what it proposes to accomplish. No exclusive system answers the purpose. The object to be accomplished is vast, and it demands all the resources both of Nature and art to successfully withstand so powerful an enemy. The greatness of the means are to be commensurate to the greatness of the object to be accomplished.

When we compare with this that system that is now so heavily endeavoring to raise its dusky head into existence. Which contemns every thing that associates itself in medicine with the true principles of philosophy and I had almost said of integrity. Standing up before the world as she does with a sprig of lobelia in the one hand and a pepper pod in the other and with these declaring herself able to counteract all disease and soon to banish it from existence. Or of that other, which is allied to sorcery or the powers of magick, healing off her mustick by the aid of some unknown power. They are both equally spurious equally detestable. It is enough to make Nature laugh her heart and blush.

XIII.

Dissertation on Variola.

By

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Variola

In selecting a subject for an inaugural dissertation I have been influenced in a great degree by the fact, that during the past summer whilst residing in the place of my nativity, I had frequent opportunities of studying the character and symptoms of Small Pox which then prevailed as an Epidemic, and of observing the treatment which seemed best calculated to remove the disease —

If in treating the subject, I offer nothing new, but merely travel over an already well beaten path, the fact of my being a tyro in science, must prove my apology —

It is my design to commence my essay with a hasty outline of the history of the disease, and to follow with some remarks on its character, symptoms, prognosis, & method of cure, together with a few remarks on the Prophylactic effects of vaccination, With this slight introduction I will now proceed; —

There appears to be great contrariety of opinion in

the minds of authors, as regards the period at which this affection, first made its appearance in the world,— Whilst some suppose it to have been known to the early Greek Physicians, others with equal confidence advocate a contrary opinion,— Without entering into the merits of the various opinions advanced, we will proceed to a point in which all appear to agree— that the first distinct history of the disease which we have, has been given to us by Rhazes, who obtained his knowleage upon the subject, from the writings of ancient arabian Physicians, whose works however have not reached the present day— It is known that the disease existed and spread throughout the East propagated by the armies of Mahomet in the seventh century, and became then known in countries, to which it had hitherto been a stranger;— The Crusaders also were the means of spreading this pestilence widely; for after the wars against the Saracens were concluded Small pox, was disseminated over Europe.—

During the 15th century, it became known in England & from thence was first introduced into our Country, soon after its settlement, where it has prevailed occasionally ever since its first introduction.—

This disease owes its origin to a peculiar Contagion;- about 10 or 12 days after being exposed to this contagion the patient perceives the first symptoms of the disease, He is affected by chillness, followed by fever, pain in the head and back, pain in the stomach increased on pressure and general lassitude — Small pox has been divided by pathologists into two varieties, viz distinct & Confluent; In distinct small pox the pustules are distinct in their character, each surrounded by an inflamed border, and a diffused redness of a much paler hue;

In the confluent variety these pustules coalesce or run into each other, frequently covering the face and other parts of the body, with one continuous crust or scab.— When a patient is attached with distinct small pox after the existence of fever, for three or four days

minute red spots make their appearance on the face afterwards on the neck and other parts of the body; about the end of the second or commencement of the 3rd day, these spots become small vesicles filled with a thin serous fluid, after some days this vesicle changes its character into a pustule, and is distended by a purulent fluid, this change occurs about the eighth or ninth day when maturation is fully completed, in a few days these pustules dry and form scabs which soon fall off frequently leaving the patient covered with pits;

When the eruption first makes its appearance the face begins to swell, which in general subsides after the eruption is complete. In this variety of small pox the eruptive fever is usually mild in its character and is ushered in by a cold stage, exacerbations of fever occur for three or four days. the patient has a tongue covered with a white fur, generally some soreness of the throat & inflamation of the bronchia, but after the subsidence of the fever these symptoms usually abate & the patient becomes convalescent.—

The Confluent form of this disease is usually preceded by a violent eruptive fever, attended

by great general disturbance of the system. The pain in the head, back and limbs is much more severe than in the distinct variety, the gastric uneasiness is increased - frequently pain in the pit of the stomach & vomiting are present, the eyes are more swollen and watery - the voice huskey and all the symptoms of bronchial irritation are present & much increased; - Frequently the tongue and fauces are covered with the eruptive incident to the disease, Sometimes in persons of weak and debilitated habits the fever assumes a typhus character, When this state occurs the danger of the patient is manifestly increased; —

In forming our prognosis we are regulated by the form and violence in which the disease appears, In the distinct small pox occurring in a healthy subject but little danger need be apprehended, but even in this form persons of delicate constitutions or those of an inflamatory habit, often suffer severely and their cases terminate fatally;

In the Confluent form, as has already been observed, the danger is much greater -

The most unfavorable results may be expected, when we find the patient laboring under a high grade of fever with affections of the brain, larynx, or bronchia, producing delirium or difficulty of breathing. On the contrary however when we find the mind composed, with a soft yielding pulse, the tongue and fauces free from pustules the breathing natural, we may form a more favorable opinion; —

The specific character of this contagion is of such a nature, that it is communicable by the mother to the foetus in utero, Well attested instances have been recorded, in which this fact is proved, & it is probable many of those who appear insusceptible to attacks of this disease, may have already had it in that manner; —

It is also asserted that the foetus may have the disease whilst in the womb of a Mother who had previously passed through the disease, and was at the time free from infection. —

Like most of the exanthemata, Small Pox usually occurs but once in the system; but cases

of Secondary Small pox sometimes occur, generally of a modified character:—

When called to a patient laboring under the disease our efforts should be directed to moderate inflamitory action, sometimes in persons of a plethoric habit, we find it usefull to bleed, but in general, as far as my own experience has gone, this is not required in a majority of cases—

A free circulation of fresh air, the entire absence of every thing that can tend to increase the Animal heat— Keeping the bowels open, by the use of laxatives, Sul. Mur. Hyd, & the refrigerating Salts, the use of antimonials, regulated diet, and the free use of cold water internally and externally, has been all that has been found necessary— to carry a patient safely through an attack of the distinct Small pox, —

When of a confluent form, attended attended with high inflamitory excitement— I have used the lancet with much advantage, both in restoring the sufferings of the patient at the time and moderating the crop. For as a general rule,

the means taken to reduce the heat of the surface were always attended by a correspondent diminution of the crop of pustules — When the bronchia were affected, after proper deplétion, the use of stimulating expectorants, and mucilageneous drinks was attended with advantage; ——

During the existence of the disease last spring in Columbia Pa, it was my fortune to attend about 40 cases of the disease, several of which were cases of virulent confluent Small pox — and they all recovered under the above plan of treatment, with the exception of a single case; " (I had forgotten to say that the disease in some of my " patients assumed a low type which required the " use of cordials before their convalescence was fully established)

The only fatal case referred to occurred in a broken down inebriate, who had just recovered from an attack of Mania a potu — In this individual, the fever was typhus from the commencement, & the eruption instead of preserving the usual character resembled petechiæ, the whole surface was covered with these spots, varying in size from a grain of shot, to that of a dollar

the patient after lingering a few days died of gangrene of the lungs." — " The only disease with which Small pox can be confounded is Varicella or Chicken pox — In this latter disease the symptoms are in general less violent, and the pock runs through its course with greater rapidity, The only strong diagnostic difference is however, in the appearance of the pustule, which is never attended with the central depression which is found in the Small pox pustule, —

A modified form of Small pox called Varioloid sometimes prevails occurring after Vaccination or previous Small pox, but as this disease differs in nothing from genuine Small pox, excepting in being of a milder ~~form~~ character & as the same general treatment is necessary for its removal, it is unnecessary to say any thing further,

Since the discovery of vaccination by the immortal Jenner in 1798, this disease which was previously one of the most fatal incident to humanity, has been shown of its destructive properties,

It is seldom at the present day that we meet with individuals whose countenances are seared with the marks of this destroyer of beauty. When ineffectual in totally eradicating all susceptibility to disease, it exerts a modifying influence, and when Small pox does attack, its inroads are less violent and more easily counteracted by medical treatment, —

That it will in a majority of cases, when effectually practised operate as entire preservative, I fully believe, knowing that many who have been exposed extensively to contagion, owe their exemption to this cause alone; —

A single instance I will mention of its efficacy, drawn from personal observation — One of the earliest cases of Small pox, I witnessed was in a family of five children, none of whom had been previously vaccinated; As soon as the character of the affection was known, the remaining members of the family were immediately and carefully vaccinated & notwithstanding the poverty of the family compelling all to occupy the same apartment, the disease was confined to

a single instance, Indeed from the readiness with which the progress of the disease was arrested in Columbia, by the adoption of general vaccination, my confidence in its efficacy as a prophylactic has been fully established. —

I have now very imperfectly completed the task I assigned myself at the time and with a further apology for the imperfections of my effort I take my leave of the subject. —

W. S. McCorkle

New Haven Jan 16th 1844 Yale Medical College

XIV.

Dissertation on Iodine.

By
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of North Haven, Connecticut,
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Iodine

Among the great variety of new remedies which claim the attention of the medical profession at the present day, Iodine appears to me, not unworthy of their special ~~attention~~ notice. Adapted in its application to a variety of diseases, and being capable of combination, with a great variety of substances, it bids fair to be one of the most valuable aids to the physician, in alleviating the woes of his fellow beings.

Iodine was first discovered by Courtois in the year 1811 or 12 a salt petre manufacturer of Paris. Clement first described it in 1813 and it was soon after more fully investigated by

Davy and Gay Lussac. It received the name of Iodine from the greek ιωδης violet colored in allusion to violet color of its vapor.
Courtois first discovered it in the mother-waters of soda, obtained from sea weed, and it was found afterwards to exist, in nearly all marine plants, in many of the marine mollusca, in sea water, in mineral waters, in some minerals and in some of the lower grades of animals.
It may be obtained by evaporating the liquor remaining after the crystalization of Soda from the lixivium of the ashes of the marine plants, untill most of the soda and common salt have crystalized out; then add a little dilute sulphuric acid to precipitate sulphur and to disengage muriatic acid, then evaporate to dryness, the saline mass remaining will contain Iodine if any was present in the materials.
To this mass contained in a tubulated retort furnished with a tubulated reciever add half its weight of Sulph acid, a brisk effervescence

will take place when the Iodine will come over in vapor and be condensed,

Iodine is an opaque, bluish black, scaly, crystalline substance, with a metallic lustre, an acrid taste, easily raised into a state of vapor by the application of heat. The vapor is of a beautiful violet color, odor of Chlorine, but less pungent, like Chlorine possessed of bleaching properties. It stains the skin yellow, which gradually disappears— It is scarcely soluble in water, requiring 7000 times its weight, to dissolve it. Soluble in Ether & Alcohol Its solubility in water is much increased by the addition of certain salts as the Chloride of Sodium Nitrate of Ammonia, or Hydriodate of Potassium. It combines with most of the non metallic and nearly all the metallic bodies forming when the combination is not acid the compounds called Iodides; some of which are used in medicine, as the Iodide of Potassium Mercury Zinc Iron &c.— Iodine may in most cases be detected when in combination, by heating, when the peculiar violet vapor will rise, but when this cannot

be made evident, it is unerringly detected by starch which produces with it an insoluble compound of a deep blue color. This test is so delicate as to indicate its presence in 450,000 times its weight of water. To render it free when it happens to be in combination with salts a little Nit Acid must be added to the solution suspected to contain it.

Iodine has been occasionally adulterated with animal charcoal and the peroxide of Manganese. The presence of these substances may be detected by heating the suspected substance when the Iodine will rise in vapor and leave the other substances behind. It may also be adulterated with water. This fraud is detected by compressing the Iodine between the folds of blotting paper. In this ~~state~~ moist state it is unfit for Pharmaceutical preparations.

Therapeutical Properties—Locally applied it acts as an irritant, staining the skin of an orange yellow causing itching, redness, desquamation. If the vapor of it is inhaled; it produces cough with heat of the air passages, and an unpleasant sensation in the head. Taken internally in large doses, it acts as an irritant to the coats of the stomach, causing restlessness, burning heat, palpitation frequent pulse violent priapism, copious diarrhea excessive thirst trembling emaciation and occasional syncope.

In small medicinal doses, it often palliates, and even removes disease without changing perceptibly any of the functions of the body. Pereira states that in a case which came under his observation, of chronic mammary tumour. Iodine was administered daily for twelve months, without any perceptible change except that the patient was unusually thin during the period.

In some instances it is said to increase the appetite whence it has been called a tonic.

In some instances it is said to increase the peristaltic motion, while in other cases it has the effect to constipate; more than one third of the patients treated by Lugol experienced a purgative while Gendrin & Maunsow observed that it constipated,

It stimulates the secretory organs increasing the quantity of fluid secreted, producing what Pereira calls a Liquefacient effect. Lugol declares it to be a diuretic, all the patients under his care who had made use of it declared that they passed water more copiously. Said in some cases to have acted as an Emenagogue — Several cases are upon record, where it is said to have caused salivation; although there are others in which it was administered to check profuse salivation from mercury, with benefit. It is said to have a tendency to the surface producing diaphoresis, also in some instances to have caused the absorption of the mammary gland and wasting of the testicles. A disordered state of the cerebro-spinal system has been induced

by it, causing headache, giddiness stupor &c.—
A specific effect on the skin is sometimes produced besides the diaphoresis above mentioned
Dr Vogel gives an account of a Lady 28 yrs of age of a yellow complexion, who from the internal use of Iodine suddenly became brown. Stedman says that in scrofulous patients it improves the condition of the hair and scalp. Red hair having assumed a chesnut brown under the long continued use of the Iodine internally.—
Some have ascribed to this remedy aphrodisiac properties. In some cases the long continued use of this article has given rise to a disordered state of the system called Iodism or Iodic disease. The symptoms are, violent vomiting purging, with fever, great thirst, palpitation rapid and extreme emaciation, cramps small and frequent pulse, occasionally with dry cough, and terminating in death.
As to the Modus Operandi of this medicine, it is believed that whether taken internally or applied externally, it is taken up by the absorbents and

carried through the system, proof of which may be found, in its having been detected in the urine sweat saliva milk & blood ——

Therapeutical Applications The first experiments made with this remedy were upon goitre and of all the remedies yet proposed for this disease, this appears to have been the most successful, hence we may account for the efficacy of burnt sponge in this disease, Coindet was the first to try it. He gave it in the first instance, in the form of tincture, and he remarked that in about a week from the commencement of its use, the skin over the goitre became less tense, the substance of the tumour softer, the particular portions of the gland became more distinct & separate from each other, and less & less hard, untill gradually a diminution was perceptible. Frequently the goitre disappeared in the space of from six to ten weeks under the continued use of this remedy. Its external application

was often combined with its internal with good effect. Bayle gives a summary of cases treated by several physicians in which it appears that of 364 cases treated with Iodine 274 were cured. Dr Copland remarks that of several cases of this disease which have come before him since the introduction of this remedy ~~not~~ one has occurred which has not been cured or greatly relieved.

Scrofula is another disease in which it has been successfully employed. It is stated that Coindet was the first to introduce this remedy for this disease. But Doct Wanson was the first who tried it on an extensive scale. He treated upwards of eighty cases of Scrofula & Scrofulous Opthalmia by the internal exhibition of Iodine, sometimes combined with its external application, and in a large proportion of cases in which the remedy was persevered in, the disease was either cured, or ameliorated, the general health of the patients being at the same time improved. Lugol Physician to the St Louis Hospital Paris, made an extensive trial of this remedy. He treated with Iodine alone in

17 months 109 scrofulous patients. 36 were completely cured. 30 quitted the hospital with marked improvement and at the close of the year 39 were still under treatment. In four cases only the treatment was ineffectual. Among the cases which he has given, we find Tubercular Scrofula, Scrofula of the mucous membrane especially opthalmia, cutaneous scrofula, Scrofula of the cellular tissue, and Scrofula of the bones—

M. Baudelocque physician of the hospital "des enfans" reports that of 67 girls of the age of from 4 to 16 troubled with scrofulous affections treated with Iodine, in which the disease had existed for a considerable time varying from 10 months to 9 yrs, 15 were completely, 14 so much improved as to indicate speedy recovery 13 appeared less benefitted but still sufficient to warrant hopes of recovery, 5 exhibited little & 20 no amendment at all. It was been recommended, and employed with success in scrofulous affections of the knee joints.—

Syphilis.— It has been found serviceable in Syphilis and the healing of old syphilitic ulcers. Dr Martini of Lubeck reports that he has found this remedy very

serviceable in many cases of ulceration of the throat whether syphilitic or not. A woman 40 years of age applied to him with an ulcer of the throat of two months standing. The appearance of the sore was very suspicious, it was excavated, hard and painful. The Iodine was given and nothing else, In the course of a week the ulcer was very much improved, and speedily afterwards it healed up— The womans health which before for some time had been precarious, was much improved under the use of the remedy, and at the same time, a leucorrhea which had existed for several years ceased, He also reports other cases who had suffered from genuine syphilis, In one the throat exhibited several irregular excavations with elevated edges, In another the Velum was eaten away A third had been treated with mercury and a variety of other remedies to no effect, to all of whom the Iodine was given and the result was most satisfactory, the ulcerations healed up rapidly, and the general health of the patients was much improved. In some cases the medicine required to be

persevered in for a length of time before its salutary effects were observed, and on no occasion has he found any evil to result from its use —
For Bubo this remedy applied externally is one the best known. A writer in the Provencial Medical Journal after stating several varieties of treatment for this affection, says, "The best treatment of all is to paint over the enlarged glands night and morning with a strong solution of Iodine in the Hydriodate of Potassium". "The effect of this" he adds is almost magical. If the Bubo suppurate he recommends an injection of Iodine in Hydriodate of Potassa Iodine 4 grs Hyd Potassa 5 grs water 8 oz. —
In enlarged prostate gland an Iodine suppository has been used with benefit, and the Iodide of Potassium has been administered successfully in the same disease. A medical student lately told me that he was taking the Iodine daily for enlarged prostate with stricture with evident advantage
It has been used in ovarian tumours, and chronic enlargement of the Uterus with success. Pereira in his Materia Medica gives an account of a case

in which the uterus was of osseous hardness and of so considerable size as nearly to fill the whole of the pelvis. Yet in six weeks the disease had given way to the use of the Iodine and the catamenia were restored. In the Guys Hospital reports are several cases given by Dr Ashwell - of hard tumours of the uterus successfully treated by the use of Iodine, in conjunction with the use of mild diet and occasional bleeding. Besides the internal use, it was also used in the form of an ointment, compound Iodine grs XV Iodide Potassium ℥ii Spermaceti Oint ℥iss of which a portion about the size of a nutmeg was introduced into the vagina and rubbed into the affected cervix for 10 or 12 min every night. Fahr. cured by an oint of Iodine & mercury an enormous degeneration of the ovaries which gave rise to two tumours of the size of the head.

Iodine is highly recommended for Dropsies For Hydrocephalus it has proved highly efficacious Evanson and Maunsell in their work on diseases of Children recommend it for this disease.

Dr Christie relates an interesting case in the London and Edinburg Journal of Science, of a child 6 yrs of age in which symptoms of acute Hydrocephalus, were present, After having made trial of the various remedies employed in this disease for 2 or 3 days without success but rather an increase of the symptoms, he concluded to try the Iodine and prescribed as follows,

℞ Iodide Potassium grs XVI.
Iodine — — " IV.
Aqua ℥i

Dose tablespoonful every 4 hours

The head was directed to be rubbed with a weak oint of the Biniodide of Mercury — Under this treatment the patient amended and finally recovered,

It has been used also in ascites with success — In Leucorrhea it has been employed with benefit Lugol observed that in several cases in which he prescribed Iodine for Scrofula obstinate Leucorrhea had been cured, — A German Physician relates case of a lady 22 yrs of age who had Leucorrhea

of 3 years standing, who he treated with Iodine in the form of an injection of a diluted tinct with complete succes in a short time.

This remedy has been employed to check salivation Hufeland informs us that in 17 cases it was employed with benefit. The severe smarting, the tumefaction of the glands of the mouth and the profuse flow of saliva ceased after 3 or 4 days of use of it, and the mercurial sores often healed up at the same time The dose usually given was 2 grs at first in the course of the day, and it was increased to 4 grs in the following formula ℞ Iodine grs V

Solve in Spts Vini ℥ij

Aqua Cinnamomi ℥iiß

Simple Syrup ℥ß

M Dose ½ table spoonful every 6 hours & increase

) As an external application in various diseases it has proved highly efficacious

In Tetter Turneman and others found it very serviceable

A Physician in Alabama states that for several years he has been accustomed to treat the Herpes Circinatus

with the Tinct of Iodine with the happiest effect, and says he does not recollect a case which he has not radically cured

Brehme succeeded in curing rapidly & completely a case of inveterate porrigo favosa, and ophthalmia depending thereon by an oint of Iodine —

As an application to Erysipelas it has proved beneficial. A Lady about 40 yrs of age applied to me Father with Erysipelas affecting both hands. The hands were much inflamed, turnid painful exquisitively sensitive to the touch, so that she was unable to move her fingers in the least. The Tinct of Iodine was applied, of the strength of ℥i to ℥j. The pain was relieved almost instantly the turnefaction and tenderness subsided, and after two or three applications, at intervals of a day or two the disease was entirely removed —

For Chilblains I have seen it applied with great benefit relieving the itching and soreness almost immediately

I saw the Tinct applied upon the foot of an old gentleman which was greatly inflamed. The

inflamation commenced upon the great toe, and gradually extended untill it had reached above the ankle, The parts were very much swollen highly inflamed of a purple color in spots, so that apprehensions were had of its taking on mortification Upon the application of the Iodine Tinct, the pain swelling & inflamation subsided, and by several applications the disease was completely removed. Many other cases, of various diseases, might be mentioned in which it has been used with alledged success, but enough have been cited to show that it is a remedy of some efficacy and well worthy of our trial.

Preparations and Administration—

Iodine is rarely administered in substance, but is generally combined with some preparation which will render it soluble in water, more commonly the Iodide of Potassium. In the administration of Iodine care should be taken to avoid gastric irritation, and therefore it should not be given upon an empty stomach, Ephebited immediately

after a meal its topical action is considerably diminished especially if amylaceous substances have been taken, as potatoes bread pudding, sago tapioca &c, with which it forms an Iodide of Starch. Iodine in substance has been given in form of pill in doses of ½ gr but this mode is objectionable and now is not generally resorted to.

Tincture Iodine / Iodine ʒij Rect Spir ℥i Dublin, U.S.P. orders Iodine ℥i Rect Spir ℥xvj. This is chiefly used as an external application. Dose internally mv to f ʒß It is used mixed with 4 or 5 parts of Soap Liniment as an embrocation

Liquor Iodini Compositus. US Iodine ℥vi Iodide Potas ℥iß Aqua Destillat ℥j Dissolve, Dose 20 gtt

Iodidum Amyli / Iodide of Starch. Rub 24 grs of Iodine with a little water, and gradually add ℥i of finely powdered starch, dry by a gentle heat and preserve the powder in well stopped bottles. Dose ʒß gradually increased

Unguentum Iodini. Iodine ℥i Prep hogs lard ℥i or Iodine 20 grs Alcohol 20 minim Lard ℥i. Rub the Alcohol and Iodine together then add the lard untill thoroughly mixed, Employed as a local application to tumours &c

Iodide of Potassium, made by mixing Iodine Carb Potash & Iron filings & water The action of the substance is similar to that of Iodine and is used in combination with it which it renders soluble in water —

Iodide of Iron, made by mixing Iodine ℥ii with Iron ℥i water ℥ß. It is indicated as a tonic and resolved in cases of debility accompanied with a soft and relaxed condition of the solids with paleness of the skin —

Biniodide of Mercury, (Red oxide of Mercury) ℞ Mercury ℥i Iodine ʒx Alcohol ℥s It is a powerful Irritant & Caustic used chiefly as an external application in obstinate ulcerations opacity of the Cornea obstinate opthalmia Cancerous affections &c Dose internally 1/16 gr gradually increased to 1/48. There are various other preparations

which I need not mention

In case of poisoning by Iodine the first object is to evacuate the stomach, For this purpose vomiting is to be assisted by the copious use of tepid diluents & demulcents especially by those containing amylaceous matter or starch wheat flour sago &c or in case there can not be had milk or white of Eggs, Magnesia is also recommended, Opiates also have been found useful

XV.

Dissertation

on

The use of Narcotics in the treatment of Insanity.

By

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Candidate for the Degree of Doctor in Medicine.

On the use of Narcotics in the treatment of Insanity.

Insanity is a fearful malady. To rank in society is exempt from it; no age is entirely insured against its assaults; nor religious devotion; nor depth of intellect. It invades the family circle; subverts all those kindly affections which adorn it; and turns the gentle outpourings of love into streams of malignant hatred, and renders the unfortunate an object of horror & suspicion. In former times, so dark & deplorable a fate seemed to await the lunatic, who was exiled by superstitious dread from human sympathy, & so profound a horror seemed to mark him out as an object of divine vengeance, that antiquity has recorded its sense of its appalling nature in the dreadful doom: "quem Deus vult perdere prius dementat!"

No human foresight can anticipate with certainty its movements; and it remains for philanthropy directed by skill & experience to endeavor to arrest its progress, & repair the

inroads it has made. The time is not far distant we trust, when the community at large shall be impressed with the importance of prompt treatment when the first symptoms of lunacy discover themselves. when the profession shall urge the immediate location of the patient in a Lunatic Hospital, instead of tampering with his disease by the uncertainties of private practice. and when Lunatic Hospitals shall be conducted on the most enlightened principles.

There are several modes of treatment practised at our various Lunatic Hospitals to which I will briefly advert. Some confine their treatment almost entirely to coercive measures with the apparent hope of repressing the vagaries of insanity by force. Others rely almost entirely upon narcotics, & expect by constant & excessive drugging to induce quiet & submission; but it is not philosophical, to say the least, to hope to divert the bewildered faculties into a new channel, where their restoration is to be effected by paralysing their energies. There are other Hospitals, where a course intermediate between these is adopted, and these are perhaps somewhat more successful. In a very few instances a domestic character is given

to the Institution in some degree, and the course of medi 3
cation is supported by a variety of auxiliary means which greatly augment its efficacy. This system is in a state of improvement & will undoubtedly be generally adopted. I shall not be deemed extravagant, I trust, in expressing the expectation that the treatment at our various Lunatic Hospitals will in time become so much improved as to proceed with almost perfect certainty in all recent cases, & to restore a larger proportion of cases of long standing; & shall not be thought over confident in indulging the opinion, that the large & indiscriminate use of Narcotics which at present prevails so extensively, will eventually be greatly modified in quantity & in mode of application.

The narrow limits of my essay prevent my expending a longer time in preliminaries, or entering far into detail. I shall endeavor to exhibit in what manner narcotics may be advantageously made use of in the treatment of Insanity by shewing,

<u>In the first place</u> - The effect of narcotics upon the System.
<u>In the second place</u> - The condition of the system in Insanity.

4 In the third place. The importance of discrimination in the use of narcotics, and the auxiliary means which increase their efficacy.

Narcotics constitute a class of medical agents whose primary & principal action is exerted upon the nervous system. It may be observed of them as a general principle in their operation, that "they are medicines which, in moderate doses, produce a temporary excitement succeeded by depression of the system, generally followed by sleep." (Dr. A. T. Thomson). The mode of their administration also modifies their action; for if given in large doses at greater intervals, they speedily induce a comatose state of the system, without being preceded by any very marked exhilaration. They differ very much also in the degree of their depressing character; some of them exhibiting but little, if any, primary exhilaration, but inducing rapid depression of the vital forces from the first: this only claim to the title of narcotics seeming to consist in their action in producing sleep. It is an almost invariable fact in the administration of narcotics, that their long-continued use unless guarded with caution will inevitably

interfere with all the functions of the system & will induce disorders of the most alarming character if their use is persisted in.

The only narcotics made use of in the treatment of Insanity are Digitalis, Hammonium, Hyosciamus, Conium and Opium. Digitalis is not much used in our Lunatic Hospitals; not so much I perhaps, as its importance demands. Seyer in his treatise on Insanity, says "that he has uniformly found that this powerful drug exerts a beneficial effect in allaying the maniacal paroxysms and reducing irritability exactly in proportion as it reduced the pulse, whatever may be the mental action whether gay or melancholy." Having seen it given but few times, & then so combined with other articles that its diuretic effect was the most conspicuous result, I cannot speak from observation as to its power in allaying the violence of mania. The specific and active power which this drug exerts in depressing the vascular system, and in prostrating the energy of muscular action, and in inducing repose with but little if any, primary excitement, would seem to recommend it in a high degree in cases of raving mania. At any rate, this is a far less dangerous expe

cient than that of venesection, so earnestly advocated by Dr. Rush, which has probably reduced hundreds to idiocy, whose recovery would have been certain had he and his followers considered attentively the difference between a pulse rapid from nervous irritability, and one active from an inflammatory diathesis. In a case of mania complicated with, or simulating, ludicrous delirium, success might be predicted with almost entire certainty with the use of Digitalis. Patients whose livid hue of the countenance, accompanied with an irritative pulse, and with a strong tendency to vertigo, indicates defective aeration of the blood, which reacts very unfavorably in all cerebral affections, would probably be benefitted by a use of this drug. These conjectures seem to be fairly warranted by the well known character of this Article. At any rate, it deserves a more efficient trial than it has yet received; and if it should be found to possess that power in controlling inordinate vascular energy in Insanity which it exhibits in many diseases it would prove invaluable. It would, perhaps, abridge the duration of the attack more speedily than the other narcotics in many cases. The sooner a paroxysm of mania can be controlled, the more favorable the prog-

nosis of complete restoration, other things being equal. Although Insanity cannot be said to originate in increased vascular action, yet it is often intimately connected with it, and whatever brings the vascular system under proper control must have a beneficial reaction upon the mental condition.

Stramonium sometimes comes into use in the treatment of nervous diseases. In the management of Chorea, Epilepsy, and kindred affections of the nervous system, it has enjoyed some degree of celebrity. In the treatment of mental alienation, however, its uses are very limited. It should never be exhibited, especially where much excitement prevails in the system. If it is pushed with the design of bringing on a narcotic effect, for the purpose of calming irregular cerebral action, it will most certainly aggravate the disorder. This will be indicated by the ludicrous delirium that will inevitably arise; in which the patient is extremely restless — he seems impelled to be in constant motion — his face is of a bright scarlet tinge — the pupils of the eyes are dilated to such a degree as almost to expand to the circumference of the cornea — the eyes are

exceedingly intolerant of light. The patient is extremely loquacious, and his ideas flow forth in the wildest chaotic disorder imaginable, though in a happy, jovial strain. From this peculiar tendency of Stramonium to rouse the nervous system and to produce a general exhilaration, it might perhaps, have a favorable effect in producing a new action in some forms of mental alienation. Such as generally, cases of melancholia, characterized by deep depression, taciturnity, strong inclination to assume some fixed, static, like position for hours. Does not the peculiar cataleptic effect of the Stramonium suggest its use in cases of this description?

Hyoscyamus resembles Stramonium more nearly than it does any of the other narcotics, and in the treatment of those mental diseases when the latter is indicated, might be conjoined with it advantageously. It is, however, far less violent than Stramonium, and may therefore be prescribed more fearlessly, and it can perhaps be relied upon with more certainty to repress inordinate nervous action. It is said to possess, besides, some diaphoretic properties.

The use of Cerium in the treatment of lunacy is more extensive than that of any one of the preceding articles. Its specific effect is not very powerful; but it seems to be a sedative & somewhat deobstruent power, which, in connection with Nux vomica, constitutes a preparation that is highly commended in a great variety of cases. The high estimation in which it is held in many Lunatic Hospitals, but the Cerium & Nux Vomica is regarded as a kind of specific for these complaints.

Though this is an admirable preparation, and very appropriate in many forms of Lunacy, yet its indiscriminate use is to be deprecated. No stereotyped plan of medication can be as successful in any disease as judicious discrimination in the choice of remedies appropriate to their varying forms.

Opium has always enjoyed the confidence of the profession in the treatment of nervous diseases. In the treatment of Insanity it is an invaluable article, and when judiciously administered & supported by auxiliary means, in most instances, it effectually controlls excitement, removes the distress of melancholy and apprehension,

[illegible] thereby to the sleepless, and allays the numerous nervous affections (I mean nervous in distinction from insane symptoms) which frequently accompany mental diseases, and often retard the perfect recovery of the patient. Opium in Substance, in Tincture, and the solution of the Sulphate of Morphia are the forms in which this article is most commonly used; of these the Tincture and the Solution of Morphia are in most general use. The enormous doses which can be borne without immediate danger in some cases of lunacy would astonish one accustomed to the use of this drug in private practice only. I say, "immediate danger"; for some time may elapse before any dangerous results appear. Unless the constitution is supported by auxiliary means during the use of this article in these doses, or proper precautions are observed in securing a healthful action of the secreting functions the most alarming symptoms will develope themselves, or an inroad be made into the constitution from which no medication can extricate the patient.

We have not time to enter into a consideration of the action of Opium upon the animal economy; some of

its peculiarities may, however, be adverted to. "When given in small doses & frequently, it ordinarily produces excitement, which continues for a greater or less time according to the excitability of the patient. In very large doses, the arteries & veins become turgid and move in a slow but swollen stream. The brain exhibits signs of oppression — respiration is labored and defective and reacts upon the brain increasing the oppression." The torpor extends to the whole system — all the functions are impaired in their activity particularly those connected with digestion — and if the use of this article is persisted in for a great length of time, dyspepsia of the most inveterate character, or hypochondria, or convulsions may supervene.

Mosby, in his treatise on "Nervous Diseases" very properly observes "Opium cannot cure madness; nay it is known often to increase the paroxysms of fury. In perturbations of mind among the nervous and easily irritable, opium produces mandlin sort of the fancy, delirium, and distracting pains in the head similar to strong intoxicating liquors. It occasions costiveness which in madness should always be prevented."

It is undoubtedly true, that enormous doses of Opium

that anything be made their motive, have often succeeded in controlling the violence of the lunatic, and have restored him to perfect sanity; yet their administration for a long period of time is not without great hazard. It is a remark, however, which is frequently heard at some of our Lunatic Hospitals, and which recommends its use from the facility with which patients in a stupified state can be controlled. But by confessions of those who advocate it, it should teach us not to imitate expedients of this kind, which although successful in allaying the violence of the mental faculties in many instances, sometimes paralyze their energy immediately, and fix a quietus upon the mind forever. The "Report of the Western Lunatic Hospital, Va. for 1843, after recommending the use of narcotics, particularly Opium, with great freedom, says, "the greatest difficulty usually encountered in the administration of such large doses of Opiates (℥iij ℘ Tr. Opii or its equivalent every eight hours), particularly when persisted in for a length of time, results from the excessive disorder which is frequently caused to the stomach & bowels. It often happens that when we just begin to perceive their good effects in calming the patient

or in a partial return to reason, we are compelled suddenly to desist from their use on this account."

These views are not presented for the purpose of precluding the use of Opium in lunacy. It is our main dependence in the treatment of mental diseases. It would merely object to its indiscriminate ~~use~~ adoption in cases where much excitement exists, and to its continued use for a long time without taking ample precautionary measures to obviate its tendency to vitiate some of the most important functions of the system. As a general rule its use is indicated in almost all cases of lunacy when but little excitement prevails, when the skin is soft & moist, and the secretions are not greatly disordered, or are rendered successful medication for their improvement. In such cases, sleeplessness is the most prominent symptom which requires our attention in most instances, and this may be commended without much difficulty, if opiates are administered in combination with tonics, and accompanied with a use of the bath and active exercise. The opiates should be medicinally large (e.g. Tr. Opii ℥j thrice times a day) in order to arrest as speedily as possible a habit which if persisted in must inevitably

Continue the mental derangement; as well as be cured a long continued use of Opium. This article in connection with some tonic, e.g. Ext. Cinchon. Comp. may be prescribed with some confidence in such & similar cases.

I shall now turn our attention to the state of the physical system which obtains in Insanity, and be governed by this in a good degree in the course of medication we adopt. It is a fact which almost all writers on Insanity advance that insanity is almost invariably preceded or accompanied by bodily disorders. That mental diseases seem to be so intimately connected with, or are preceded by corporeal infirmity might appear to favor materialism, were it not true that physical derangement may be the first indication of a condition originating without being very apparent in a disorder of the Cerebral System. I cannot pause to quote from the works of medical writers whose views are very positive as to the almost universal existence of bodily infirmity in diseases of the mind. I might refer to the writings of Burrows, Monro, Rowley, Sayer, and many others to substantiate this opinion. Ill health may not always continue during the mental alienation; for the bodily

powers, may gradually improve, and be restored to perfect health, without ameliorating the condition of the mind. The prognosis of such cases is unfavorable, as they almost invariably terminate in hopeless dementia. An improvement of the mind without a corresponding improvement of the physical system gives no sure promise of a permanent restoration to reason; a relapse must always be expected. If, however, mental & physical improvement advance pari passu, a favorable result may with confidence be predicted. The close connection between the mind and the body should be constantly recollected in the treatment of Insanity.

The physical diseases which attend Insanity are in a great measure homogeneous in their nature. There is ordinarily some a depraved state of the liver and of the chylopoietic viscera generally. The pulse is often accelerated; but this rapidity is of an irritative character. The tongue is frequently furred, and there is often a peculiar odor given off from the cutaneous exhalants which is quite characteristic. These symptoms (and others might be enumerated) prove a condition of debility.

It is in Chronic Mania, Melancholia, and Monomania

that, we are to look for success in medication. Acute Mania is almost always becomes Chronic before a Cure is effected; occasionally, however, a paroxysm of Acute Mania disappears and leaves the patient well without any such transition. Dementia almost always indicates organic lesion of the brain; and is consequently rarely curable; and Idiocy is beyond the region of hope. Chronic Mania, Monomania, and Melancholia may all be regarded as constituting a class requiring very similar treatment; and in speaking of Chronic Mania, I shall include a description of cases, which if strict classification were to be observed, founded upon their characteristic hallucinations would require a more detailed examination. I would further observe, that every form of Insanity may have manifested itself at first by a paroxysm of Acute Mania; and that every form of Insanity is subject to paroxysms of excitement similating Acute Mania; and further, that the extensive class I have denominated Chronic Mania may, in some instances, glide into Dementia of various degrees of fatuity, and become hopelessly incurable.

The disorders of the Physical System in Chronic Mania are

chiefly: In the first place — A depraved state of the alimentary canal which is recognized in (1) Debility of the stomach, giving rise in many instances to disinclination to food. (2) Obstinate constipation with occasional attacks of active diarrhea. (3) Defective assimilation of food, which is indicated by the fact, that lunatics require food generally of a highly nutritious character, and that, as some say, they take larger quantities than sane people. These symptoms are perhaps sometimes occasioned by morbid irritability of the stomach. In the second place. A disordered condition of the hepatic system. The liver may be disordered in the performance of its functions by (1) A defective secretion of bile which must impoverish the digestive process. (2) Constriction of its excretory duct by which the accumulated bile is thrown back into the system. (3) Excessive secretion from an irritable condition. In the third place — An increased action and irritability of the vascular system. It is a fact that the pulse is generally accelerated in Insanity. This is not always true, however, in cases of long standing, although from the irritability of the system, the rapidity of the pulse may vary widely at different times. Yet so generally is this the case, particularly in Acute Mania that Dr. Rush and others of his day were led to believe

that Insanity originates in the bloodvessels; hence the confidence with which they adopted venesection as the great remedy in lunacy. An irregular distribution of arterial action may be observed in many instances. The hands and feet are cold, while the head is often hot and flushed; the carotid and temporal arteries beat rapidly, and every thing indicates a determination of vascular action to the brain while the respiration is suppressed by a convulsive effort, as we often observe in paroxysms of anger. Such a state precedes or accompanies in many instances a period of excitement which may be prevented or obviated by a prompt use of means to restore the equalibrium of the circulation. May it not be true, that defective aeration of the blood, the result rather than the original cause of the paroxysm of Acute Mania, may induce that phrenzied state of the brain which the incoherent raving and blind fury of the maniac exhibit? An irritable condition of any viscera induces a congestion of blood in that organ, which always aggravates the disorder. Much more then must the delicate tissues of the brain suffer from engorgement of blood impure from the presence of Carbon, which must increase the irritation. An impure condition of the blood arising from defective action of the pulmonary organs generally induces a comatose state, as

happens in some stages of Pneumonia, and other diseases where aeration of the blood is impaired; but while the brain is in such an irritable condition, as appears to be the case in Acute Mania, carbonaceous matter must act deleteriously like a foreign body, whose presence must necessarily increase the irritation, and consequently aggravate the delirium of the maniac. That I am not visionary in my hypothesis, I refer to the last report of the Massachusetts State Lunatic Hospital, in which a class of maladies is mentioned connected with imperfect respiration, and consequently, defective aeration of the blood, which are particularly prone to bring on paroxysms of raving mania. In this Report, the following views are presented by Dr. Woodward: "Many asthmatics are insane, and there is often a marked coincidence between their paroxysms of hard breathing, and increase of delusion and general irritation. It is an interesting enquiry whether the interruption of regular respiration in this disease, and the consequent circulation of carbon to the brain, disturbs its functions and increases insanity. It is a question covering a broad field. Nearly half the persons, who have committed homicide, that have been in the Hospital have been asthmatics."

These considerations have been introduced as some guide in the course to be pursued with a patient labouring under an-

attack of Acute Mania. If we resort to Opium alone, the difficulties will be augmented, and the patient rendered more furious, unless the dose is so great as to force sleep. A small dose of this narcotic, by its exhilarating effect, would, of course, render the patient more violent, and a large dose would have a somewhat similar, though a more permanently injurious result, for the reasons mentioned above. We must therefore be governed in our medication by the suggestions which Physiology presents. These I briefly enumerate, although somewhat in anticipation of the plan of my essay. — The System must be soothed, and the equilibrium of the circulation restored, so far as may be practicable, by the free application of cold water to the head, and the use of the warm bath. In many instances, the shower bath, or the common cold bath will be preferable, especially if followed by friction with coarse towels continued for some time. The head should be kept cool by the frequent application of cold water which generally proves grateful. The excretions should receive particular attention and proper measures should be taken to promote their healthful performance. This will be the proper time for the administration of a narcotic, as opium in the form of the Tincture; but conjoined with some diffusible

article, as Ether, or Camphor, which, by facilitating respiration would render the opiate more certain in quieting the patient, and allow of its being given in smaller doses to produce the same effect, as a soporific. In some cases, Digitalis might perhaps, be administered with happy effects.

In the third place, we proposed to consider the importance of discrimination in the use of narcotics, and the auxiliary means which increase their efficacy.

What are the criteria by which the propriety of administering narcotics in Insanity is indicated? Are we to proceed indiscriminately, and adopt the same course in all cases? or are we after a careful study of the case, to select such remedies as the peculiar characteristics of the case require. So stereotyped is the practice in many places, that a patient is no sooner admitted, than he is put upon a course of the Opium & Iron Mixture, or Tincture of Opium, or some other favorite prescription, and kept upon its use without much variation for months. If the opinions we have advanced in the early part of this essay are correct, a careful discrimination in the use of those articles which have been adopted in the treatment of lunacy, and their adaptation to the exigencies of each particular case, must be of great importance.

We have endeavored to describe the various effects of narcotics upon the system, which it is unnecessary to recapitulate; and we have attended to the state of the system which obtains in insanity, and we find that there usually exist, a depraved state of the alimentary canal — a deranged condition of the hepatic system — an increased action and irritability of the vascular system. — From this comparison of the effect of this class of remedial agents upon constitutions whose condition would seem, on some accounts, to contraindicate their use; and from the reflection that this class of remedial agents is invaluable in the treatment of Insanity, and cannot be dispensed with, we may very properly enquire

How may narcotics be administered so as to secure their appropriate & happy effects, and what auxiliary means can be used to favor their administration, and render them efficacious in smaller quantities?

We have already anticipated many things that might with propriety have been reserved for the present stage of our enquiries; convenience, however, seemed to have required it; and I hasten on to what remains. — To prepare the way for a successful operation of narcotics, certain auxiliary agents, as they may with propriety be termed, should be brought to bear perseveringly and thoroughly, which in the opinion of many are as essential as medication with narcotics

to the successful treatment of lunacy. There, however, our limited time forbids us to spread out into detail.

In the first place. The confidence of the patient should be secured. The suspicion and distrust so characteristic of lunacy requires often no ordinary care to obviate. That this is of importance will readily be acknowledged when it is considered that a fear of malicious designs on the part of those who have charge of him, and a suspicion of poison in the medicine he is forced to take will in a great degree, neutralize the beneficial effects of any medication. In no situation is ingenuity and a consummate knowledge of human nature more thoroughly required than in the case of those who are entrusted with the care of lunatics. A single unguarded expression may kindle up a blaze of excitement & fury which the most bold & adventurous use of narcotics will hardly avail to allay.

In the second place. The patient should be impressed with the importance of submitting himself to the authority under which he is placed, and of exercising self-control. This may often be effected by addressing him upon his admission in a calm and dignified and respectful manner explaining to him fully what will be expected of him, and stating to him distinctly and forcibly, in the presence of his friends, the

 reasons which induced the latter to commit him to the Hospital. This course will in the great majority of cases have a happier effect than more medication, and will at any rate greatly augment its efficacy. For you appeal to principles which awaken the self-respect of the patient; and if you are successful in this, you secure his cooperation in a great measure.

On the third place. The condition of the system should be accurately ascertained, and should receive constant attention. The secretions are almost always depraved, and require the action of alteratives before any beneficial result can be expected from sedative medicines.

On the fourth place. If the patient cannot require it, a judicious selection of some one of the narcotics should be made, combined in most cases with some tonic particularly Cinchona, Lime, or Iron. Sometimes a tonic simply is all that is required in the way of medication.

On the fifth place. Every effort should be made to invigorate the patient by pleasing exercise in the open air, and by engaging him in a great variety of interesting occupations and amusements within doors. These will have a tendency not only to render him contented with his situation, but will displace the morbid and depressing associations which almost always

haunt the lunatic, with happy and exhilarating thoughts.

In the sixth place. The most kind and respectful demeanor should be observed towards the patient. Most of these unfortunates have been the objects of contempt and severe treatment previous to their admission, and they readily appreciate kindness and feel grateful for it. The lunatic should be addressed with the same terms of respect that the sane patient would receive. This course awakens in him a feeling of self-respect to which you can appeal with more certainty of success in controlling him, and more permanent benefit than to all the classifications of the Materia Medica. If you once succeed in controlling him by arguments addressed to him as to a reasonable being, you have done more than half to conquer his malady.

In the seventh place. Bathing should be often and thoroughly practised. This will not only have a beneficial effect in removing morbid cutaneous secretions so common in lunacy; but will prove highly efficacious in tranquilizing the irritable nervous system, and in inducing repose. It is also recommended by its invigorating effect. The bath may be either cold or warm. If there is sufficient reaction in the system, so that a fine glow succeeds the cold bath, this is preferable, particularly if followed by suitable frictions for a few moments afterwards.

 In the eighth place. The patient ought never to be allowed to deviate from the rules which are established for his benefit; Any violence he may manifest should be promptly met, and the phrenzy expelled by a resort if necessary to the shower bath, which never fails to produce immediate relief. Violent language even ought never to be allowed; for it fosters the malignant frenzy of madness.

Many other things of importance might be added, but my essay already protracted admonishes me to come to a speedy close. If the suggestions I have just made are objected to, because they could not be carried out fully in private practice, I answer, that it was not my intention to encourage the treatment of lunacy in private practice. Instances perhaps occur of patients recovering by judicious treatment at home; but a Lunatic Hospital is the only place that offers suitable facilities, and where a successful result may be confidently predicted in all favorable cases. It is of the utmost importance that the patient should be immediately sent there as soon as his derangement of mind is satisfactorily ascertained. Recent cases are almost always cured. The difficulties increase very much with the duration of the disease, and while the patient is detained at home

by the solicitude of friends with the vain hope of effecting a cure amid old associations, the opportunity for a restoration to reason may have forever fled. 27

Francis Alger Olmsted

New Haven

January 1844

XVI.

Dissertation on the Present Phases of Empiricism.

By Sidney Williams Rockwell.
East Windsor Ct.

Candate for a License.

In complying with the laws of this Institution that each candidate for the degree of Doctor of Medicine - for a licence to practise the arts of Medicine and Surgery, shall read before the board of Medical Examiners a dissertation on some subject connected with Medical Science; I am well aware that such performances must of necessity bear the marks of puerility and inexperience.

Modesty indeed would often efface the record which necessity requires - nor is it a subject for wonder that protracted efforts of this nature have so often been likened to the infliction of chronic maladies. Whatever may be the faults of the present it is not designed to increase the catalogues of those.

To present ideas we have recently

received from our learned auditors, is but to introduce old friends in disguise. I have therefore selected a subject not indeed taught in the schools; nevertheless one which is painfully connected with medical science. The present aspect of empiricism therefore constitutes the theme of the ensuing pages.

This scourge of medical science is almost coeval with the science itself. The quack and the dupe have ever existed and their existence and the perpetuity of their false principles and deceptive theories are the result of causes which I shall endeavor to show.

The limits I have proposed forbid a retrospect; I shall therefore only contemplate it as it at present exists. We have indeed too rich a variety to require us to call on past ages for the resuscitation of exploded follies. None of the varied forms however plausable are of long

continuance. "Thomsonianism" with that transcendentalism of medicine "homeopathy" are already receding that poor blind humanity may receive a wave of another erotic humbug "hydropathy". The above two are the three principal ones but by no means all the forms of empiricism in present operation. The whole country is inundated by such operating upon the head, stomach and bowels by an inscrutable proxy. This although the offspring of ignorance and cupidity is too often encouraged and sanctioned by men who are permitted to disgrace a noble profession. Numbers and brainless villains are by such influence and support often assisted in plundering community and by affording false hopes to the afflicted often take from the pulseless hands of disease and death in paroxysms of wretchedness the last means of commanding the necessaries of life. This to the disgrace of

humanity is often resorted to by those who are aware of its pernicious tendency. It is the continuance of neither of these forms of charlatanism which I have enumerated we have reason to fear. Like all errors they are evanescent.

"Thomsonianism" is already sinking beneath the superincumbent weight of its own ignorance. Its vulgar votaries can never occupy the posts of intelligent scientific physicians. Intelligence and modesty begin to shrink from such uncongenial contact and it will soon be enumerated with the errors of past ages.

"Homeopathy" has passed as a shadow over the continent of Europe seeking rest and finding none but has found a temporary refuge in this country. The subtile essence of its doctrines are not understood but of course embraced for the honor by the lovers of the marvelous. I doubt however whether it could have existed at any other period

of time. In this newest wonderful era transcendentalism has arisen like Venus from the sea-foam and is seeking supremacy in literature; mesmerism would usurp the place of physiology not to mention its other absurd phantasies and these usurpers of Hahnemann the empire of medical science. Admirable sisterhood! Could there folleries have been found associated on the pages of past history the whole world would have been convulsed with laughter. Men of science discarding the more rational doctrine of the moon's being made of green cheese are soberly seeking a knowledge of its inhabitants by the aid of mesmerism. Every age has its peculiar phantasies but thanks to the stability of correct scientific principle they are of short duration. People will soon begin to doubt whether all the diseases by which they are afflicted do indeed originate from "Sun", especialy if they have never had the disease or whether the infinitesimal part of a grain of lime will correct a strumous diathesis when they

have taken a scruple daily in their food and drink without effect. They will see that a drop of water will not quench the thirst of a fevrish man or a grain of beef allay the demands of an empty stomach. Homeopathy has with respect to itself one true proposition "similia similibus curantur" ergo, folly cures itself. The homeopathist may then rest from his dreamy labours and hang his mystic saddlebags upon one of Perkins metalic tractors which has long since degenerated into a vulgar spike.

It is not therefore the continuance of one or any of the present forms of Charlatanism or any that may arise that there is reason to fear each contains the elements of its own dissolution but as like causes produce like effects it is an endless succession of them.

I propose therefore to briefly examine some of the causes which in my view tend to produce and perpetuate them.

The most prominent of these causes exists in the errors of practising physicians wherever there is a want of harmony or concert of action among the medical faculty there quackery preeminently exists and this for the most obvious reasons. Among physicians there is and probably always will be contrariety of opinion and practice. This may exist both with respect to the fundamental doctrines and their less important details. But the great error consists in the constant appeal to popular opinion and prejudice for decisions in these controversies In the appeal of parties to this tribunal for the redress of grievances the many empiric commonly sits as umpire and like the fox in the fable appropriates all the goods that results from them to himself.

I could in no way more clearly illustrate the truth of this than by calling your attention to the introduction and prevalence of "Thompsonianism" in the

northern part of this State. Since the prevalence of the fatal epidemic of 1844-45 Pneumonia Typhoides there has existed with respect to the treatment of fevers generally two distinct parties. One pursuing the correct doctrine and treating this class of diseases according to the clearest indications of a discriminative pathology;- The other unwilling and of course unable to discover any other form or variety of the disease or rather the truth of any other theory have always found debility to be the cause and Orison brandy and bark the sure antidote to all fevers. In this State of the Controversy a direct appeal to the public was made and these conflicting opinions were carried to the Chambers of disease and death each promising to his patient dissolution in case of rejection of his own favorite prescription To the friends therefore was left the direction as to the proper course to pursue and since by the united testimony of the physicians

there there was no hope in either case both were wisely rejected. Mankind were thus taught one important lesson viz: that men in certain pathological states are very tenacious of life and from this cause chiefly this bundle of the absurdities of the above named ignoramus found refuge among the people of Connecticut.

Many of the practises of phypicians at present existing in no small measure tend to perpetuate this evil One of which and among regularly educated phypicians in this country a somewhat novel one. I allude to those unwilling to trust their professional reputation to the modest manifestations of their own works adopt the empirical practice of proclaiming them to the public through the medium of a popular press. These have ever been the vehicles of empirics. They appeal to a tribunal of course incapable of correct judgement and perpetuate practices pernicious to the welfare of medical science. Countenance this principle of action

and it would in time reduce an honorable profession to a vulgar trafic and elevate boasting mediocrity to the place of unassuming worth. I might multiply examples of this nature but their existence and tendency are too well known and too severely felt to require further comment.

Were no countenance given to empirics either regular or irregular by the friends of science and order — The quack would search in vain for his dupe and the doctor with success for his fee.

New Haven January 15th 1844.

XVII.

Dissertation on Helianthemum Corymbosum et Canadense.

By
David Atwater Tyler,
of New Haven, Connecticut,
Candidate for the Degree of Doctor in Medicine.

Helianthemum corymbosum & canadense.

(Frost-weed — Rock-rose.)

The plants of which I propose to treat belong to the genus Cistus of Linnaeus & the older botanists.

Natural Order Cistineae (Cistaceae) of Lindley & Jussieu.

Sexual or Artificial Class:- Polygand. Order. Monogynia

The name of this genus has been changed by most modern writers for that of Helianthemum, & this name I shall adopt for the simple reason that I find it most common in our books.

A new generic name has been proposed for three of our North-American species, including the plants now under consideration, & with good reason as will appear hereafter, but on the whole taking the evils of extending botanical nomenclature into account, it is perhaps better that the genus should not be divided.

The name of this genus is derived from the Greek ἥλιος the sun & ἄνθος, flower, in allusion to the bright golden radiance of

the blossoms.

The essential generic character I shall give from Torrey & Gray. It is perhaps no better than that of Pursh, Michaux or most authors.

Messrs Torrey & Gray have so much improved the specific descriptions of our North-American species, that to them I must give my decided preference, & as I shall use these, — for the sake of uniformity I adopt their generic description also. It is as follows:— Viz:

— Helianthemum. — "The two exterior sepals usually much smaller & bract-like or wanting. Petals 5, or rarely 3, sometimes abortive, fugitive. Stigmas 3, large, fimbriolate, more or less united into one. Capsule triangular, 3 valved, few or many-seeded; placenta filiform, in the axis of the valves or on imperfect dissepiments more or less projecting into the cell. Embryo inflexed."

This genus, Nuttall says, embraces more than 80 species, which are indigenous to the south of Europe & the approximate parts of Africa.

He enumerates 5 North-American species, viz:— Canadense, ramuliflorum, corymbosum, rosmarinifolium, & carolinianum. Pursh & most writers on N. American plants have the same. There are but two discovered species in this section. Most of our Catalogues show but one. — The "Catalogue of Plants" for New-Haven & vicinity published in 1831, has but one, the Helianthemum canadense. But I have been informed by one of its authors, that he was fully

confident of the existence of a second species at the time of its publication — confident also that it either was not described, or else imperfectly so, it was not entered.

In the description of the North American species of Helianthemum, succeeding authors have been contented with copying the blunders of their predecessors. This is true concerning the description of all our species except two, as will appear by reference to the books, & from the following remarks of Torrey & Gray. All previous authors I believe have committed the sin of omission in an aggravated degree — omitting entirely to speak of the secondary flowers, which constitute a most important & interesting characteristic of these plants. But here are the remarks of Torrey & Gray, — they say: "Excepting Helianthemum scoparium from California & H. carolinianum which hardly belong to this section, they differ from all the European species in producing two kinds of flowers: — viz. terminal or dichotomal flowers — usually preceding the others, on slender peduncles with conspicuous petals & numerous stamens. 2nd, smaller flowers usually ~~preceding~~ the clustered in axillary cymes or glomerules, scarcely ever fully expanding, with minute petals, or often none — fewer stamens, & ~~fewer~~ smaller & ~~smaller~~ fewer seeded capsules. The two kinds often occur on the same specimens; but the latter are produced later in the season & in sterile soil

often to the exclusion of the others, giving to the plant the appearance of Lechea." They further say that a "Mr Spach has ~~not~~ noticed this peculiarity in our species & separated them as a distinct genus under the name of Heteromeris." To this division I alluded above. In describing the H. canadense, authors appear to have seen the primary flowers only. This was evidently the case with Bigelow, Michaux, Pursh, Eaton & all others I have looked into, with only one exception, Elliott, who saw & described the secondary flowers only. Whilst in ~~the~~ describing the corymbosum they saw only the secondary flowers. Beck adverts to this difference in the descriptions of the latter species by Pursh & Elliott in the following manner:— "This plant is said by Pursh to have flowers very small & sometimes without petals. On the other hand Elliott remarks that although the flowers are much smaller than those of H. Carolinianum, (a southern species which exceeds all our species in the size of its flowers.) they are nearly equal in size to those of our other species." Beck then uncourteously & sneeringly remarks:— "Perhaps the assertion of Pursh that this & the foregoing species have been mistaken for Lechea Major will apply to himself." Thus he overshoots his mark & exposes his own ignorance, for the secondary flowers very much resemble the minute flowers of the Lechea. I ought to observe, however, that Eaton & Wright in describing the H. polifolium

a species growing in Texas mention "primary or petaliferous flowers" & secondary flowers, very small, apetalous." But they make no remarks on the subject, & do not attribute any secondary flowers to the other species.

It can easily be conceived into what confusion the young botanist is precipitated by this culpable carelessness of writers. He finds for instance in the month of June, the H. corymbosum — endeavors to ascertain its name, it now has large yellow terminal flowers — they are few. He reads in Pursh "flowers very small, sometimes without petals," he reads also "multiflorus," which though correct is only so of the secondary flowers — it is described as "ramosum" — this too is true at the time of the secondary flowers — but it is not strictly true of the plant at this time. He turns to the descriptions of the other species — these will not answer of course. In short he has no description of the plant as he now finds it.

This confusion incident to such descriptions forms a part of my own experience. After something like a week's labor & notwithstanding much assistance from an elder & practised botanist, I am confident that I never should have satisfied myself that the plant last instanced, was intended to be described as the H. corymbosum, had I not fallen in with Torrey & Gray's new work & also been supplied by a gentleman with 3 species of H. from the south. I shall now give T. & G.'s specific description of these two plants as the best I have met with: —

1st. "H. canadense. (Mich.) stem at first simple, the primary or peta-

liferous flowers few or solitary, on peduncles scarcely longer than the flower. The rarely emarginate petals about twice the length of the calyx; secondary flowers axillary, very small, nearly sessile, solitary or somewhat clustered on short leafy branches. The petals very small or none; the outer sepals usually wanting; leaves oblong or somewhat lanceolate, with revolute margins (when dry) and, as well as the sepals & often the branches & peduncles canescently tomentose."

"On dry sandy soils, Canada to Florida, June to Sept. Stem 6-18 inches. Capsules of the apetalous flowers not larger than a pin's head, few-seeded; seeds angular, scabrous-punctate."

2nd. "Meionthemum corymbosum. (Mich.) Stem branching from the base, canescent; flowers in terminal fastigiate cymes, the primary ones (rather large) on filiform peduncles much longer than the flower, the secondary flowers in glomerate cymules, mostly apetalous-3-10-androus; sepals tomentose-villous, the inner ones oblong-ovate, acute, the outer linear & obtuse; leaves oblong-lanceolate, with somewhat revolute margins (when dry), softly canescent beneath."

"Sterile places near the coast - April - May & again in Oct. about a foot high, very tomentose when young. Outer sepals about the length of the inner ones. Capsules of the primary flowers many-seeded; of the secondary ones rather few-seeded. Flowers nearly the size of the H. canadense. — A well-marked species, readily distinguished by having, among other characters, the apetalous

flowers not on leafy branches, but with the others forming a compound terminal cyme."

I shall add but a few words to this description, already undesirably long. The stems of the H. canadense are of a deeper red than those of the H. corymbosum. I have often heard it familiarly distinguished as the red-stemmed Rock-rose. It is less common — leaves broader, shorter & less revolute.

It more usually grows among whortleberry bushes, or rocks, in partially shaded places. It is sometimes found on sandy plains the more favorite locality of the corymbosum.

The corymbosum is often locally associated with the Lechea major from which it is difficult for many persons to distinguish it after the appearance of the secondary flowers. I have very often known this Lechea gathered for the Helianthemum.

The Helianthemum is most readily distinguished by the taste from Lechea. The H. has a rough astringent & somewhat bitter taste — whilst the Lechea has a smooth, insipid & mucilaginous taste.

In addition to the interesting peculiarity which these plants present in the production of two crops of flowers in the same season — there is another still more beautiful & interesting. This the production of a crop of ice crystals. During the months of Nov. & Dec. every frosty morning may be seen near the base of these plants, tufts of ice crystals, consisting of broad, thin, curved, lamellated plates 2 or 3 inches in length, wrought &

arranged with such exquisite delicacy & beauty as might well make a poem in praise of such a rival as Jack Frost."

The form of crystallization appears to be the same as that described by Dr John Locke in the Jour. of Science Vol. 42. No. 1. in an article on "Alabaster in the Mammoth cave of Kentucky," p. 206. The crystallization appears to commence upon the alburnum, expanding splits of the bark, this yielding in a degree, still adherent above & below by the pressure from behind sweeps around, guiding the crystal in the arc of a circle. Other crystals follow, exceeding the first in length — they shoot in this way from opposite sides & in different directions, till at length meeting they form the beautiful objects described above.

The European botanists have evidently little knowledge of these plants. Miller in his dictionary says, that the H. canadense was discovered by Kalm in Canada.

I find by Loudon that it was introduced into England & cultivated from the seed in 1799. This is all the botanical history I have been able to gather. Miller does not mention the corymbosum neither does Loudon.

Chemical Analysis. — A cold infusion of the H. corymbosum being made & filtered, it was subjected to the following reagents & tests. The color was a wine red. Litmus was reddened indicating a free acid — a deep black was produced with the proto-sulphate of Iron — gelatin was not precipitated — hence I infer that the plant contains gallic acid. In the course of experimenting precipitates were had with lime water, bi-chloride of mercury, sulphate of Alumina, sulph. zinc, Tartar emetic & the salts of the Alkalies. The acetate of lead & nitrate of Silver produce dense precipitates which according to Thompson indicate the bitter principle, who says in his chemistry vol. 4, p. 244, that "Nitrate of Silver & Acetate of lead are the only two bodies which throw it down."

A large proportion of alcohol was added to the infusion which gave a precipitate, — also the silicated potash produced a copious precipitate These show the presence of gum

The infusion was shaken with ether, an oily fluid separated, specifically heavier than the Ether, resting partly upon the watery menstruum & partly mixed with the ether. This oily matter was separated by decantation. It was very volatile — possessed of a sharp aromatic taste & a heavy herbaceous odor. A larger quantity of apparently the same oil was obtained by distillation from quick lime; but from want of proper care it was lost before I had opportunity of giving it a full examination. After removal of the ether & oil the remaining fluid had

acquired a deeper color & was precipitated readily as before with acetate of lead, lime water, &c. - but did not precipitate by infusion of nut-galls. A concentrated infusion of nut-galls precipitates the vegetable alkaloids. - It occasioned a precipitate with this infusion before it was treated with ether but this was readily soluble again in water, which should not have been the case if an alkaloid were present, from this & the fact that infusion of galls did not precipitate after the oil had been removed, I doubted the existence of an alkaloid.

2nd. A small quantity of the plant was infused in cold. Nitric acid. After decantation alcohol was added which produced a copious precipitate of fecula or starch.

3d. Eight ounces of the plant were boiled in water until the fluid was half evaporated, the liquor was then strained & reduced in a water-bath to the consistence of an extract. Half an ounce was obtained which was firm, tenacious, when dry, breaking with a resinous fracture & of a dark brown or nearly black color. This extract was only partially soluble in hot alcohol of sp. gr. 815. The coloring matter was very little taken up by the Alcohol - It reddened litmus, filtered & evaporated an uncrystallizable substance remained which was strongly astringent. The portion undissolved by alcohol was treated with distilled water & mostly dissolved by it. This reddened litmus, had the color of the infusion, the smell

of the plant & an insipid taste. This would seem to indicate that the active principles of the plant were not connected with its coloring matter & that Alcohol is a good solvent of its properties.

An infusion of the Ho. canadense gave the same indications by the same tests so far as applied. But its sensible properties & therapeutical effects being as ~~far~~ near as I could judge the same as those of the Ho. corymbosum, I did not apply all the tests used to the former.

From these processes we have indications that these plants contain an abundance of Gallic Acid. 2nd; Bitter Extractive - 3d Fecula in quantity. 4th a Volatile Oil. 5th a trace of Gum. To these might be added lignin, coloring matter - probably wax & a few other proximate principles, but all of little value in a medical point of view.

This analysis is acknowledged to be imperfect. During the summer I operated upon the plant, but without facilities - without experience & consequently without precision. Recently better opportunity for analytical operation was kindly afforded me by Mr. B. Silliman Junr. To him therefore I am much indebted & had not my time been occupied by attendance on lectures, I should probably have increased my indebtedness & been able to present a more thorough & accurate analysis of the plant.

The utility of these plants applied to the Arts. — Into a strong decoction I immersed rags of linen, cotton & flannel — after having first dipped them in a mordant of Alum — They were all dyed of a rustic yellow & very little changed by washing. The flannel especially retained a fine color.

The same experiment was tried with a mordant of Sulph. Iron, resulting in the production of a fine deep & permanent black color.

Medical History & Properties. In speaking of these Helianthemi, I shall designate Themos one, by the vulgar name Frost-weed. This name is commonly applied to both species, & both species have been used indiscriminately, as well they might be, for they possess little or no difference in sensible or chemical properties. The corymbosum however is the species mostly used, for this is most abundant.

The Frost Weed, has been used medicinally by Prof. Ives about 30 years. Anterior to this period I have no indication of its use in regular practice. How or when Prof. Ives first obtained a knowledge of its properties, he does not now recollect. He prescribed it in cases of scrofula in form of decoction. Several other practitioners in this city induced by his recommendation have also used it in this disease. It is a somewhat common article in domestic practice for the cure of scrofula & cutaneous diseases of scrofulous origin.

Whittaw a Scotchman, a botanist & withal a quack of some notoriety, who travelled in America about 1814 or 1815, learnt its use probably in Canada & I believe used it for medicating steam-baths in an establishment of his in England, which was celebrated for the cure of scrofula & other chronic diseases.

Nothing as I have well ascertained has ever before been written on the properties of this plant.

One species only of this large genus has been used heretofore as a therapeutical agent. This is the Cistus creticus of Linnaeus which grows in the islands of the Archipelago of the Mediterranean — a juice exudes from the plant in the summer, which is called Gum Ladanum. This is said to resemble Balsam of Peru. It was used in catarrhs & dysenteries, also externally in the form of a plaster — the "Emplastrum Ladanum compositum" of the old Dispensatories. It has fallen into disuse.

Our list of indigenous Materia Medica is already so large, that any proposed addition is perhaps looked upon with little interest by the profession generally. But it seems to me encouragement cannot be wanting to induce attention to the remedial virtues of our indigenous plants. Past investigation has been richly repaid. What practitioner would willingly dispense with a knowledge of Sanguinaria, Spigelia, Serpentaria, Actea or Senecka? Our valuable tonics & astringents, Cornus circinata, Spirea t. Gum r. Geranium m. Heuchera a. we would hardly be dropped for all the foreign articles of this class. Many of our plants have been subjected to little or no investigation. How then do we know but that we have plants in our fields of even more value than any already known. But there is a still greater inducement. It is the duty of medical men, as conservators of the public health to have command of all possible resources for medication — to suffer the virtues of no plant to remain in obscurity, when industry or ingenuity can in any way avail mankind of its properties for alleviating distress or curing

disease. These plants are proposed as an addition to our indigenous vegetable remedies, & not as a substitute for any other remedial article. Containing as they do Gallic acid, & bitter extractive, they are evidently astringent & tonic. Therapeutical experiment proves them to possess these properties; but they can be substituted for no astringent or tonic in our Materia medica. Few, if any remedial articles are defined by a single word. Scarce any remedy can be said to be purely & simply tonic, astringent, emetic, &c — either some other properties are held in combination, or the remedy has some specific or local action of its own. As a general rule articles comprised under one head in classification may, when indicated be prescribed almost indiscriminately, yet the peculiar virtues of one article often renders it eligible, when most of not all others of the same class are contra-indicated. There is a certain adaptation or choice of remedies which though apparently a small thing is the grand secret of skill & success. Number & variety of remedies favors this adaptation. Every remedy has an action sui-generis. Classification only names some prominent quality. These Helianthemi are tonic. They are eminently astringent & also possess the power of resolving scrofulous tumors — deobstruent — exactly in what manner I cannot say, but I suppose in consequence of some change of condition & action in the secernants & absorbents at large, induced by a change in the function of nutrition. One of the first & most obvious effects in exhibiting this remedy is an improved appetite & digestion, more healthy chyle results. Pathologists say that in scrofula (& the fact

is observable) there is a predominance of the white tissues over the red & want of equilibrium between the lymphatics & vascular system. Now the furnishing of better chyle to the blood must assist in restoring this lost equilibrium. It may be said most tonics improve the appetite. True. But nearly all the tonics vegetable & mineral have been used in scrofula, & they have been only palliative, or perhaps ineffectual or even in many cases positively injurious. The purely tonic course it is now conceded is not so efficient as the tonic & alterative plan.

Again, disorder of the chylopoetic viscera all writers tell us accompanies & precedes scrofula. The digestive powers are weak & irregular — the bowels either constipated or affected with mucus or serous diarrhoea. Chronic inflammation or irritation of the mucus membranes is also connected with & concerned in the formation of a scrofulous habit. All this must result directly in the derangement of the secerning & absorbing systems. The restoration then of tone to these viscera — the allaying erythematic inflammation or chronic irritation of these membranes constitute an important item or sum of items in the cure of scrofula. The effect of frost-weed upon nutrition has been spoken of, & we know that astringents by their sedative effects upon the nervous fibrille are beneficial in allaying erythematic inflammation. This effect I suppose may be attributed to the astringency of our plants. Probably on this principle decoctions of Geum, of Lycopus, of Cornus, Geranium,

the South-American Alcornoque & many other astringent vegetables have cured incipient phthisis & scrofula by their effect in allaying inflammation of the mucus membranes & thus restoring them to their proper chylopoetic functions. After all it is perhaps best to listen more entirely to the experimental testimony. The following case is interesting not only as convincing the efficacy of the frost-weed - in dicating its action & value, but also from the fact of its being so far as could be ascertained the first case in which it was used in this section. The individual is now living in this city - of undoubted veracity & intelligent. He speaks for himself, as I noted the facts as they fell from his lips.

Mr. A. C. When about 8 years old swelling of a gland of the neck commenced & increased in size, without pain or ulceration until about the age of 14 when the tumor increased rapidly & became very painful. He applied to Dr Amos Munson who ordered poultices of the rock-grass (fucus vesiculosus) & some internal remedies, "terra ponderosa" (muriate of baryta) was one of these. Not being apparently benefitted, he consulted Dr. Spalding of this city who ordered poultices & induced suppuration. His disease progressed, & at the age of 16 he had eight tumors on the neck discharging - three ulcers on the shoulders & three on the hips.

Mr. C. finding no benefit from remedies had for many years discontinued all medication when in the year 1817. (now aged 38.) he fell in with a Mr. Smith, a wealthy farmer from Long Island, who had the

reputation of curing scrofula. Mr. C. was told if he would try Mr. Smith's medicine, he would only charge for his trouble in gathering it, as it grew on his own farm. Mr. C. Smith [illegible] a package of herbs finely chopped, with these directions: "3 table-spoonfuls of the herbs to 3 pints water; let [illegible]. Drink freely" — "Apply to the ulcers stramonium leaves, rub the unsoftened tumors with an ointment sent him which he describes as smelling strongly of the skunk's cabbage (Dracontium foetidum of Linnaeus). He was put to bed; light & nourishing; spirits, wine, cider, vinegar, spices & milk were forbidden. At the time he commenced upon this course, he was emaciated, weak & languid, had been unable to labor but little for the last year & a half — the last 5 or 6 months none at all. He was seldom able to get to his work-shop. His head was drawn down upon his left shoulder by the painful tension of the integuments from enlarged glands. Two tumors were discharging abundantly from the neck & in the axilla was a gland enlarged to the full size of the fist but not discharging. Under this treatment the discharge from the ~~tumors~~ abscesses ~~lessened~~ diminished, & the unopened tumors lessened in size & in four weeks from the time he commenced the use of this medicine he resumed his daily labors. (Coopering.) This treatment was continued with benefit from spring until about haying time, when a craft that brought his herbs ceased its trips & Mr. C. was without his medicine for a time. He visited Long Island that if he might if possible get further benefit, & for a month he passed from his boarding place to Mr. Smith's four times a day to get his tea — or bitters as he termed

it from the fact of his taking his medicine at the fashionable bitter drinking hours. On one occasion he found his tea made of the plant entire not chopped as usual. He otherwise found it differed neither in taste or appearance, from his usual drink. He took some specimens from the vessel & soon found what he judged to be the same herb growing among some whortleberry bushes. (a favorite locality as every botanist knows of the W. country) He gathered a parcel, & returning to his boarding place with the plants in his hand met Mr. Smith's negro domestic — showing them to him, he remarked, "I can be my own Doctor now." The negro replied that he gathered the herbs for Mr. Smith, & added you have found one of the plants in your medicine which we call frost-weed. Mr. C. returned to New-Haven, resumed his daily labors & relieved of his troublesome disease gave up all medicine & continued well for two years, when from over-exertion a spitting of blood was produced. Dr. Fox was called & aware of the benefit he had received from his Long. Blood Medicine, again advised its use. Some years previous whilst Mr. C. was using this medicine Prof. Ives being called into the family carried away some of the chopped herbs & found them to be Helianthemum with a very small portion of Arbutus uva ursi. — of this he informed Mr. C. & from that time to this he has been in the habit of using the frost-weed from our cornfields. He uses it from habit about a fortnight every spring & at all other times whenever he perceives the glands of his neck enlarging & invariably with the effect of resolving the induration in a short time. Mr. C. now 64 years of age enjoys tolerable

health – his neck is sadly scarred, evidencing at once the severity of the disease & the success of the remedy.

Remarks. – It should be noticed that the patient used the medicine in the first place at his own home without change in habit or circumstances save in diet. The effect produced then could not be owing to external causes, change of place &c. Neither was the imagination wrought on, & the system thus effected by the Munchausen stories & lying wonders of some crafty & unprincipled quack. Another point to be noticed is the proof that the plants used were the Frost weed – this I need not recapitulate

For the statement of the two following cases I am indebted to one whose experience, skill & reputation are testimonies that his accurate observation is beyond question. They are not in detail, but sufficiently so for our purpose.

2nd. Miss C. a young lady of delicate constitution, when 9 years old, about 25 years since was affected with cough, & the neck thickly studded with scrofulous tumors. She belonged to a strumous family. The symptoms threatened tuberculous phthisis – was put on a free use of decoction of frost-weed. This was taken as common drink. Under the use of this remedy she recovered her health & has not been affected with any symptoms of the disease since.

3d. Mr. H. D. Returned 15 years ago from the Havanna, then aged 25, with several tumors on his neck in a state of ulceration – the discharge evidently scrofu-

lous. This patient was put upon a free use of the frost-weed, together with ½ gr sublimate - in the course of 4 weeks the discharge ceased & by continuing the decoction of frost-weed the tumors entirely disappeared.

Many recent cases showing the efficacy of the frost weed in Scrofula might be cited, but these perhaps are sufficient.

These plants heretofore used only in the treatment of Scrofula were always used in decoction. The extract I first made: ℥ss was obtained from ℥iii of the plant - of this grj is a large dose for an adult. I have known it in this ~~dose~~ quantity produce vomiting. The strong decoction has also produced the same effect. The tincture I prepare in these proportions: ℥j of the herb to ℥j diluted alcohol. This tincture has been prescribed as a tonic for an adult in tea-spoonful doses. For children, in cases of Cholera Infantum gttv to xv.

From the abundance of Gallic acid contained in these plants, together with their other peculiar properties, I inferred that they might be a remedy of great value in diarrhoea - accordingly in the first case that presented I used it & made the following notes:

July 17. 1843. N. E. about 20. - laborer was attacked June 30th with a profuse diarrhoea - discharges averaging 15 during the day - also 4 or 5 during the night, ~~&~~ dysentery discharges attended with little or no pain - to the 16th inst. has labored - unable to work. Coated tongue but

little furred, moist — pulse 84, easily compressed

℞ Herbae Helianthemi ℥iv. aquae ℔iv - boil ad ℔ij. Take a wine-glass full every 3 hours. The diarrhoea was controlled the first day, & on the third day he was cured — had a good appetite felt well & returned to his labor.

The next case in which this remedy was used, was that of a clergyman in this city. He was attacked on Saturday morning — was subject to looseness of the bowels. During Saturday & night he had 5 or 6 stools thin & bloody. On Sunday morning was much weakened & continued to grow worse. At 9 A.M. he took several grains of Extract Helianth. & during the day took some of the decoction made as in the case above. He was enabled to perform his usual labors of the Sabbath. On Monday he had a regular stool & continued well.

Aug. 13. A young person had been troubled with diarrhoea for two weeks — had taken paregoric to no purpose — face flushed, some fever, pulse 96. Ext. Hel. gij was ordered every 5 hours. The next day, the stools were nearly healthy — but two in number — the fever subsided & the pulse reduced to 82. The same continued, cured.

Another case of diarrhoea with frequent stools, of several days standing was cured by a single dry pill of the Extract.

Mr. — spent one of the hottest days of last September in visiting the hospitals of Bellevue & Blackwell's Island. In the afternoon felt fatigued — had spells of vertigo — in the evening nausea, great pain & some purging. He was brought from Brandy & sugar — but grew worse. The first part of the night

was restless from pain — vomiting was frequent in the latter part of the night — pulse about 95. The only medicine at hand was some grij pills Bxt. 76. It was a question whether they were exactly adapted to the case — the patient decided to try the experiment. The first pill taken about 4 A.M. produced an uneasy sensation in the stomach for 15 or 20 minutes, followed by a discharge from the bowels. Three pills more were taken about an hour apart & quiet sleep enjoyed during the intervals. At 4 o'clock pulse about 75. patient had a good appetite but dieted — no stool was had until 2 days from this & then a healthy one.

An insane patient at the alms-house was wasting away from constant diarrhea. Chalk mixture & Opium failed to control it. It was speedily stopped by taking 3 grij pills Bxt. 76. & no stool had until one was produced by Sulph. Magnesia a week after.

The Frost-weed has been used during the past summer in many cases of Cholera Infantum with entire success, often after other remedies had failed. One case of Epilepsy in a strumous child, the fits occurring every 3 weeks was so relieved by this remedy as to pass 6 months without fits. It has been successfully used in the chylous diarrhea of tabes mesenterica & phthisis — in one case of secondary Syphilis, as a gargle in Scarlatina & other sore throats & in prurigo as a wash. An obstinate case of internal or bleeding piles it relieved very much. In diseases of the skin occurring in persons of low fever it has been of service. In one case of debility, with anorexia — irritability of the stomach & colicy pains of the bowels —

after many other remedies had been used without permanent benefit—the appetite was restored & the other symptoms relieved, by the use of a decoction of the frost weed. In chronic cases of debility from menstrual difficulties & uterine disease the frost weed has had a wonderful effect in improving the appetite strength & spirits. In short in every case requiring tonic & deobstruent action it has more than fulfilled my most sanguine expectations. In some cases I have thought the frost weed diuretic. Many more cases & facts of interest might be stated, but I will conclude, simply remarking that the frost weed, to say the least, is worthy of more extended trial.

David Alexander Tyler.

XVIII.

Dissertation
on
Hydrocele

By
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Candidate for the Degree of Doctor in Medicine.

Hydrocele, when used in a literal sense, means any tumour containing water.

The term, "Hydrocele", is now limited by surgeons to accumulations of fluid in the tunica vaginalis testis, the cellular texture of the spermatic cord, and the cellular texture of the scrotum.

This paper will be confined to Hydrocele of the tunica vaginalis testis. It is a disease of frequent occurrence, and is met with in patients of every age and constitution.

Hydrocele of the tunica vaginalis testis, is an increased secretion of that membrane beyond its necessary quantity - thereby producing a tumour of a pyriform shape - fluctuating and translucent. Beginning about the testicle it gradually lessens in diameter as it advances toward the abdominal ring. It is generally un-

-attended with pain and is only inconvenient on account of the great size to which it some-times grows. The testicle is usually situ-ated about 2/3ds of the swelling downwards in the posterior part of the scrotum, where it can be felt by the hand; or, if the fluid is transparent, the testis can be seen, by placing a candle behind the scrotum. Sometimes the testicle is glued to the fore part of the tunica vaginalis, and the serum accumulates on each side.

The Diagnosis is exceedingly simple. Hydrocele is distinguished from diseased testis as follows. It is less heavy. The pain at-ending it is not so intense when the testis is squeezed: and in diseased testis there is pain in the groin, with an appearance of loss of health.

Hydrocele is distinguished from Hernia as follows. Hernia descends from the abdomen; Hydrocele grows from below upwards. Hydrocele fluctuates and is translucent. Hernia does not

fluctuate and is not translucent.

Natural Cure. Sometimes if the Hydrocele is large, and the patient obliged to labor for subsistence, inflammation of the tunica vaginalis and scrotum takes place: a slough is produced: the water escapes: adhesive inflammation succeeds; and the cure naturally follows.

By Absorption. In children a suspensory bandage kept wet with Muriate of Ammonia & Liquor Ammonia acetatis in proportion of ℥ii. of the former to ℥vi. of the latter, by producing excoriation leads to the absorption of the fluid. this mode of treatment is recommended by Sir Astley Cooper.

By Tapping. When the patient is unwell, or fears an operation, Tapping may be employed and has sometimes, but very rarely cured.

By Excision of the tunica vaginalis to a greater or less extent.

By passing a tent into an opening in the tunica vaginalis, which produces partial inflammation. This however does not prevent the return of the disease

By Caustic. Applying caustic until its influence reaches the tunica vaginalis thereby destroying its life and texture.

The operations which are most resorted to at present are Injection, Incision and Seton.

By Injection. The patient is placed on a bed; the surgeon sitting before or by his side, grasps the tumour with one hand, while, with the other, he introduces the trocar, covered by its canula, into the tunica vaginalis. When the trocar is withdrawn, the surgeon presses the tunica vaginalis and scrotum around the canula, to keep it from slipping. The water escapes. Thus the surgeon places the end of an elastic hydrocele bag to the mouth of the canula, and by compressing the bag injects its contents into the tunica vaginalis, until it acquires the size of the original tumour. The patient soon feels pain in the groins, the spinous process of the ilium, the loins and sometimes the neck of the bladder. The fluid is allowed to remain about 5 minutes, or until the above described

hands are felt, and then the operation is completed. The greatest care should always be taken to prevent any of the injected fluid getting into the cellular membrane of the scrotum. This accident has happened to surgeons of the greatest distinction - producing violent inflammation, gangrene, sloughing of the scrotum and denudation of the testicle. The swelling produced by the injection should be as great as the original tumour. The injection usually consists of 2 parts port wine to 1 of Water.

Velpeau employs a tincture of Iodine in the proportion of from one to two drams to an ounce of water. The cure is said to be much sooner effected by the iodine, and if any infiltration takes place, it is more readily absorbed. This practice originated in India - and is generally adopted by the French surgeons.

<u>By Incision.</u> When you suspect some disease of the testicle or hernia, this operation has been recommended. It is performed by cutting from the upper part of the swelling 2/3ds downwards

through the tunica vaginalis, taking care not to leave the testicle too much exposed; then by sprinkling a little common flour producing suppuration granulation and thereby a cure. After the operation apply a poultice.

By Seton. The water should be discharged in the same way as if you were to perform the operation by injection - Then pass a common curved needle and thread through the canula into the tunica vaginalis, including one inch of the tunica vaginalis and one and a half of the integument; draw the needle through and tie the ends of the the thread loosely. The seton can be allowed to remain until the desired inflammation has been produced.

This operation is now resorted to by some surgeons, on account of its greater simplicity, the surgeon always having it in his power to withdraw the seton as soon as the necessary degree of inflammation has been attained.

C. L. Uhlhorn.

XIX

Dissertation
on
Congestive Bilious Fever.

By
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of Lyon, Michigan,
Candidate for a License.

It is well known to all who make any pretension to medical knowledge that high atmospheric temperature, sudden vicissitudes of weather, in conjunction with the miasmatic influence are the common causes of those disorders known as remitting & intermitting fevers; and no less true is it that the various forms of periodical rheumatism & neuralgia so often observed in paludal districts are attributable to the same causes.

From the time of Hippocrates to the present day, no one has written a treatise on the practice of medicine, who has not endeavored to make us acquainted with the etiology pathology & treatment of bilious remitting & intermitting fevers; but in vain shall we attempt to find in our standard works on theory and practice, an accurate description of some of the forms of disease to which the inhabitants of our frontier settlements are liable, & which are just as evidently to be referred to miasmata as a remote cause as are the tertian ague & the bilious remittent of the books.

Of the simpler forms of miasmal fever nothing will now be said, the remarks which I shall make will be confined exclusively to the more complicated & anomalous forms of paludal diseases so often witnessed in some portions of the United States, & which it may with truth be said, form

a greater share of the diseases which afflict the inhabitants of our new settlements

By many medical writers it is contended that the extent to which the miasm may be carried in a sufficiently concentrated form to exert a deleterious influence upon the human system is very limited: some asserting that half a mile is the utmost extent to which it is carried, & that usually it does not extend more than one fourth of a mile. (Bancroft) That the distances here spoken of are far too limited can be proved by the experience of every medical practitioner west of Lake Erie. There can exist no reasonable doubt that under favorable circumstances the miasmatic influence has proven fatal to persons who resided at the distance of at least two miles from the place where the miasm has been generated. I speak from observation when I say has proved fatal; for though intermittents (and such is the form the disease assumes at so great a distance) in northern latitudes, are considered free from danger; in that form known as "congestive fever", death often takes place in the cold stage. Intervening objects, such as mountains, dense forests, or high walls limit the extent to which the malaria may be carried. It is also observed, & no doubt truly that intervening bodies of water have the same effect; probably

by absorbing the noxious effluvia. Damp night airs have the power of carrying the malaria to a much greater distance than the more rarified air of the day. Heavy showers of rain by precipitating the deleterious principles in the atmosphere are well known to have put an almost immediate stop to the prevalence of bilious disorders. Hard frosts do the same thing by preventing the generation of new supplies of miasm. Those whose duties require them to be for a long time exposed to the direct rays of the sun during the day, & especially if engaged for a long time in some laborious, fatiguing occupation are much more liable than others to an attack of some bilious disorder. Exposure to the damp night air which always prevails in malarious districts, to sudden vicissitudes of temperature, severe & long continued exertion, the depressing passions, previous disease, in short anything that has a tendency to debilitate the system, may be reckoned among the predisposing causes of these diseases. If by proper attention to the diet the bowels cannot be kept in a healthy condition, recourse must be had to medicine: scarcely less injurious is an inactive or constipated condition of the bowels, than a long continued diarrhoea. Those individuals who are induced by a desire as they assert to cleanse the stomach & thus prevent the ague, to make

use of some one or more of the thousand nostrums which are advertised as sure preventives of this disease, are almost certain to bring about a state of the system directly calculated to produce it. Drastic purgatives by their debilitating effects are always hurtful. If any of this class of medicines is needed, none but the mildest laxatives should be used. That state of mind which induces many to swallow every kind of trash which is said by the gossips of the neighborhood to be "good for the ague", to say nothing of the irritation produced in the primæ viæ by the irritating & often disgusting substances themselves, is of itself directly calculated to bring on the evil they are striving to prevent. Upon the whole then it may be said that a due regard to diet, proper exercise without undue exertion either of body or mind, avoidance of the damp night air, are the only means necessary in general to avoid an attack of bilious disease.

<u>Congestive fever</u> or as it is called by those out of the profession "chill fever", is nothing more nor less than a quotidian intermittent complicated with congestion of some internal organ - commonly the brain. This form of fever, though in its commencement as easily managed as the most simple, becomes by neglect a truly formidable malady. Considering the disease as a simple quotidian which will terminate of itself, the patient is permitted to suffer

one paroxysm after another until all hope of benefiting him by the most judicious treatment is passed & the physician is called to him only in time to witness his death. To use the words of a late writer, - "The chill commences as usual though attended with coma. The hot stage is not well developed, the extremeties remain below the natural temperature, & about the body the heat is a little increased, the countenance pale, lips livid, coma continuous, pulse weak. The sweating stage is not well defined, as there is more or less sweating from the beginning, but after a more profuse sweating during which the coma continues, the patient will get up & go about his business, the whole exacerbation having occupied about the same length of time that quotidians do in general. During the sweating and for some time after, the skin on the hands looks as if it had been parboiled, it is so corrugated and bleached. The patient remains very comfortable during the intermission, and the next day about two hours later than the day previous another paroxysm comes on, with less apparent violence than many of the most harmless cases of ague; but a want of full reaction or developement of the hot stage of the disease remains the same, coma more profound & continues some hours longer than the day previous. But the coma gradually subsides, and

at length the patient gets up again and goes about as before until the accession of the next fit when the coma is more profound & still more protracted than before. In this way it goes on 'till about the sixth paroxysm the patient remains comatose during the whole intermission. When the disease arrives at this stage, the next exacerbation is the last, for he never arouses from the profound stupor into which it throws him and he dies in twelve or twenty four hours."

Such is usually the termination of neglected cases of congestion of the brain. When from any cause, there is a preternatural determination to, or congestion of the lungs, which is most likely to be the case in the spring or late in autumn, the patient exhibits many of the symptoms of hydrothorax, such as difficulty of breathing, especially in a recumbent position; and more or less cough without much expectoration. His countenance however instead of exhibiting the cachectic appearance of the hydropic, is flushed and livid from the obstruction of the circulation in the lungs. The pulse though tense is small, & if examination be made by auscultation, it will be found

that the heart is beating violently, unable however, to overcome the obstruction to the circulation, ~~the extremi~~ ties cold, the heat of the body in some cases greater than natural, & the whole appearance of the patient is that of extreme anxiety & oppression. He seldom continues longer than the third or fourth paroxysm, unless prompt measures are employed to arrest the disease & relieve the overloaded vessels of the lungs.

<u>Treatment</u> — Should there be a perfect intermission it will be the duty of the physician to put a stop to the further progress of the disease as soon as possible. No time should be lost in endeavoring to prepare the system by the exhibition of emetics & cathartics, for the operation of <u>the bark</u> or quinine. Experience has taught that quinine is not so dangerous an article even in large doses as was once supposed — though it may be presumed that few will venture to follow the example of Dr. Flint, who, as he affirms, gave twenty or thirty grains of quinine at one dose, & in some instances 40 grains in the course of half an hour in cases of simple intermittent (Braithwait no. 5 p. 65). During the paroxysm, if the brain is oppressed by the distention of the cerebral vessels

the head should be raised high and bladders filled with cold water applied to the shaven scalp, an epispastic to the nape of the neck, sinapisms to the feet; & should not the power of deglutition be completely overcome (calomel & jalapa āā grs. 10) should be immediately administered. When the coma is profound, a stimulating enema may be given. During the continuance of the chill, the extremities are to be wrapped in flannels wrung out of hot water, or thoroughly rubbed with warm dry flannels to produce a circulation in them.
Recourse must be had to prompt and efficient blood-letting, without which indeed all other means will prove unavailing. The internal organs are oppressed, & by the unwonted burdens they are made to bear are unable to discharge the duties that naturally devolve upon them, & in no way can they be so promptly relieved as by bleeding. When the congestion of the brain is slight, not producing profound coma, a small quantity of blood may be taken from the temporal artery or jugular vein, but in more violent cases it should be taken from a large orifice, made in a vein of the arm.
The two following cases are given to show the danger

of neglecting the employment of venesection, though other judicious measures are adopted, and that in cases apparently hopeless, venesection may immediately check the progress of the disease.

Case 1st. A. D. a vigorous young man of twenty two years of age, was attacked with the usual symptoms of fever, and nothing untoward appeared in his case for a number of days, until it was thought by his friends that he showed some signs of delirium, & was too much inclined to sleep. Venesection in intermittents was at this time considered by his physician as an experiment of doubtful propriety. The abstraction of a moderate quantity of blood from the temporal artery, sinapisms to his feet, blisters to the wrists & back of the neck, showering the head with cold water, & the exhibition of purgatives, were all in vain; the patient died, with evident marks of effusion in, & compression of the brain.

Case 2d. W. G. S. art. 35, of strong constitution and temperate habits, was attacked with what he considered simple intermittent or common ague. During the cold stage he suffered much from headache & the paroxysm continued without much abatement of

the febrile symptoms for nearly twenty four hours, or until near the time of the accession of the subsequent exacerbation. Notwithstanding the vigorous employment of the usual febrifuge remedies, the coma was seen to become more and more profound at each succeeding fit. It was now determined to try the effect of opening a vein of the arm at the next cold stage, as it was evident the patient would not be able to endure more than one or at most two such paroxysms as he had already passed. Never was appropriate treatment more promptly followed by the hoped-for result. The skin which before had been corrugated, harsh & dry, was soon covered with a gentle moisture; other febrile symptoms gave way, & by the administration of suitable tonics the patient was rapidly restored. Notwithstanding the debility in such cases, which is rather apparent than real, venesection should not be delayed, proper care being taken however, to watch the changes in the symptoms during the flow of blood. If the pulse is observed to rise during the operation we may be encouraged to proceed, as we may be sure that by this means the heart & arteries will be relieved of their

burden.

In support of the opinion above stated that periodical rheumatism is produced by the same cause that brings on the ague, acting upon a constitution predisposed to rheumatic affections, I will quote from Dr. McCulloch's excellent treatise on malaria. He says – "The most simple case of all, while it is one which ought never to be mistaken is that where a rheumatic pain in some particular muscle is strictly periodical, returning and ceasing in regular paroxysms. Or, the whole body may suffer, or rather there may be so many different muscles affected in some place or other that scarcely any movement can be made in which some one or more of the disordered portions, is not brought into action, conveying to the patient the feeling of a universal rheumatism". Dr. M. here refers to the chronic form of the disease. Of the acute rheumatism he observes – "The question at present is whether there are not acute rheumatisms of the most regular form which are truly modes of the quotidian intermittents, or the remittents possibly, originating from the same causes: & if it shall be decided that this is the fact, & that there is an acute rheumatism generically different, then we shall probably be able to explain

the causes of the contests so long maintained with regard to the use of bark in this disease. Though we may doubt, as does the author just reffered to, whither all cases of rheumatism are produced by malaria, there can be no doubt that this is the case much more frequently than is generally supposed, and that many cases which are obstinate under the ordinary mode of treatment might be speedily cured by the judicious employment of antiperiodics, and tonics. I was, not long since assured by a distinguished practitioner in this state, that he knew of no remedy so effectual in rheumatism, after the febrile symptoms were somewhat moderated, as the sulphate of quinine.

Whatever other causes may occasionally generate that distressing affection known by the name of tic-doloreux or neuralgia, there can be no doubt in the minds of those who are acquainted with the diseases of the Southern & Western states that it often owes its origin to the same cause that produces bilious fevers.

Dr. Jolly in speaking of this affection affirms that "it is <u>usually</u> unattended with pyrexia; but in <u>some</u> cases it is accompanied by all the general symptoms

of intermittent fevers simple or malignant. "But (he continues) what we wish particularly to impress upon the minds of our younger brethren, is the utility of attending to those cases which assume a periodical form, leading us to trace them to the general causes which produce the tribe of agues & remittent complaints — namely, emanations from the earth." If then these affections resemble agues so nearly in their premonitory symptoms — in their occurring periodically — in their time & manner of termination — and finally, in readily yielding to the same remedies — why may they not with the greatest propriety be referred to the same cause?

But little need be said regarding the treatment of these affections, as it need differ in no essential particular from that which is proper in the more common forms of disease produced by the same cause. The indications are to correct the morbid secretions of the liver & other digestive organs, and to prevent the return of the paroxysms. The first of these indications is best accomplished by the use of alteratives, and for this purpose calomel is probably the best article of the materia medica. For interrupting the paroxysms there is no remedy so effec-

tual in most cases as the sulphate of quinine. When however as is sometimes the case in rheumatism, there remains a sub-acute, inflammation, or irritation of the vascular system after depletory measures have been carried as far as is deemed prudent, instead of giving the more powerful tonics, the sulphate of zinc in small doses, or perhaps Fowler's solution, will be preferable. If the carbonate of iron which has been so highly extolled as a remedy in neuralgia is administered at all, its use must be delayed until all inflammatory symptoms are subdued - it may then be useful as a tonic. The vegetable deobstruents, as the extract of Taraxicum, a decoction of the Arctium lappa, tincture of Sanguinaria, or Aralia nudicaulis, may be used during the period of convalescence.

Lucius C. Walton

XX.

Dissertation on Typhous Fever.

By

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I propose to offer a few remarks on Typhus Fever. It seems to attack all ages, & both sexes alike, & in certain localities is to be seen, more or less almost every year.

By some physicians it is considered to be contagious: by others not. It certainly is not generally treated as a contagious disease, by the friends of the patient or by physicians, who continually expose themselves to this liability. It sometime, attacks in succession different members of the same family, & perhaps it is in this feature that it most resembles contagious diseases. Several patients in one house are not uncommon, but a large majority of cases are single ones. It is recorded by good authority that the disease has been carried into & spread in a district where it had not been seen for years. From what I can learn regarding its contagiousness it seems probable that in many of those cases where it is most distinctly seen, there has often been culpable disregard to cleanliness.

Some have said that putrid food taken into the stomach is a pretty certain cause of Typhus.

This theory would account for but very few cases in New England, however well it may correspond with facts occurring in Europe

Other, that putrid animal effluvia are a cause.

The immunity of the laborers ~~at~~ in the Voirie of Montfaucon from all epidemic or contagious diseases seems to be conclusive against this. Duchatelet states that Two hundred exhumations are made annually in one cemetery of Paris: & although the bodies are removed in every stage of decay, yet no instance of Typhus has been known to occur in consequence. In a pure atmosphere, it is admitted by those who believe it is contagious, that the Malaria is much less virulent.

Experience has long since shewn that there is little danger of contracting Typhus, from attending a patient whose apartment is thoroughly ventilated: while the malignancy of the Jail or Hospital Fever is almost proverbial

It is said seldom to attack the same individual twice.

It seems to have many of the characteristics of the self-limited diseases & physicians who have had

much experience with it, think it is very seldom shortened though others say they occasionally break up an attack when called early, yet even then the patient is rarely able to pursue his ordinary avocations in less time than a common period of the disease.

The late Dr Nathan Smith said he had never been satisfied that he had cut short a single case of Typhus that he knew to be such, nor had he seen a solitary instance of its having terminated within Fourteen days from its first attack.

It seldom or never comes on suddenly.

The patient is generally ailing a few days before he is willing to acknowledge the presence of any disease. A feeling of lassitude weakness or fatigue, soreness of the flesh & bones, dull aching pain in the head especially the back part, & down the muscles of the neck & back are among the earlier symptoms.

The face is pallid & seems to grow sharper: the eye sunken heavy & languid.

If muscular system is prostrated, the hand trembles. the tongue also when protruded. often subsultus tendinum. The circulation feeble frequent & irritative, at first, in some cases becomes afterward fuller & stronger though the patient complains of chilliness especially if in a draft of air, the skin generally feels hotter than natural & at times has a peculiar stinging heat. The tongue at first covered with a brown fur afterwards becomes clean & often dry.

Petechiae are frequently seen. The bright red which in favorable cases, resemble fleabites on the neck & breast, become dark & livid in fatal cases. Larger patches or Vibices, when of a dark color, are indicative of an unfavorable termination.

The bowels, tho in some cases torpid are more likely to be loose & there is often a troublsome diarrhea, which is dark colored & very fetid. A tympanitic state of the bowels attends the diarrhea.

The Urine at first pale & copious, afterwards becomes depressed & deposites a sediment.
The Bladder at times loses its power & the Urine accumulates in large quantities, requiring the aid of the Catheter.
The nervous system is much deranged, the patient being irritable & peevish restless & watchful, but averse to any exertion. Some patients refuse to converse with the physician or any but familiar friends & appear entirely indifferent to surrounding circumstances. Recollection of incidents occurring during the illness is often impaired & sometimes entirely lost. Delirium or wandering of the mind is not uncommon.
The Respiration is usually affected in a greater or less degree. Usually the proportion between the respiration and circulation is deranged, the respiration ~~being~~ slower than natural is often a long full inspiration like sighing, though

at times the patient pants & labors as if unable to fill the lungs.
A Recapitulation of symptoms which might be seen in various cases, might easily be prolonged beyond the patience of the Board.
Dr Nathan Smith says that powerful remedies or measures in the early stages of Typhus are very liable to do harm. Bleeding seems to be adapted to the early stages of a few cases, shewn by the sense of fullness in the head & pain in the chest Profuse sweating probably does more harm than good.
The bitters are often very useful & in many cases are well combined with the acids & tonics. Cantharis does well in some cases. The Mineral acids may assist in preserving the tone of the stomach. Cool drinks & where it is grateful to the patient the cold affusion are proper

Should the intestines require to be emptied enemas are often to be preferred to Cathartics.
The nervous derangement is generally well met with Opium, combined with Camphor & Ipecac, or at times with Mercury altering the secretions & checking the diarrhea when that is present. Sometimes it is also useful as a stimulant as well as anodyne.
The disturbance of the proper proportion between the respiration ~~&~~ circulation may be met with the diffusible stimuli or by remedies adapted to lessen the arterial action
A much more potent treatment has been recommended by some practitioners,
So many disagreeable sequelæ have followed the very high stimulating plan that it is now (probably deservedly) mostly given up. As to the diet of the patient, in the early stages the want of appetite of the patient will generally prevent many

errors. Mucilaginous & farinaceous substances are much preferable to Animal food & Liquids generally to Solids. In the latter stages when the tongue has become clean the appetite returns & often requires controlling.

Quiet Cleanliness & thorough Ventilation are of much importance & are too much neglected by most nurses if not by most Physicians

John F. Miles

XXI.

Dissertation on Phymosis.

By

William Joseph Whiting,

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On Phymosis.

This often troublesome, and in its results, sometimes dangerous, affection, has received but little notice from surgical writers, except as an annoying accompaniment of ulcers on the glans penis or prepuce, which, where the disease is not congenital, are its most frequent causes. Authors have usually divided it into accidental and natural or congenital, but its origin affords no distinguishing mark of its nature or guide in its treatment, for by neglect the natural phymosis may assume precisely the character of the accidental, and the latter again, its cause subsiding, may after a while come to be in no way different from the former. I think the only important distinction to be made in this disease, should be founded on its complication (or not) with ulcerations of some kind, and keeping this point always in view, I shall offer a few remarks first on Accidental Phymosis. This, according to Mr. Hunter, is produced

by anything capable of exciting diffuse inflammation in the prepuce, ending in a thickening of the cellular membrane, and a contraction of its orifice. This would seem comprehensive enough, but some critic has noticed as an exception, that it may depend on mere enlargement of the gland, in those cases where the prepuce is naturally so long as to cover it. Among its exciting causes, I have already mentioned ulcers on the glans or prepuce as the most common; next to these is spurious gonorrhea, and occasionally it is brought on by common gonorrhea, or even simple irritability of the urethra. These by keeping up a constant irritation, induce inflammation more or less acute in the mucous membrane lining the prepuce, followed by a stricture at its orifice, preventing its retraction over the glans. That the contraction is merely of this part is shown in many cases by the internal folds of the membrane being protruded, and becoming partially strangulated. As the disease progresses, the sebaceous and other matter retained between the prepuce and glans, proves an additional source of irritation, giving rise to new ulcers, and to various

vegetations, often discharging a thin acrid matter. The breaches of surface becoming extensive, the urine sometimes infiltrates into the cellular substance, causing gangrene and sloughing of the prepuce, and performing what Mr. Hunter calls a natural cure. A cure of the same sort is sometimes brought about by adhesive inflamation, uniting finally the prepuce and glans but considerable deformity results, requiring for its removal a very tedious and painful dissection. Where neither of these processes occurs, the case is a perplexing one to manage, especially after consulting the various authors upon the subject. The most obvious means of relieving it, by slitting up or removing the prepuce, is almost universally condemned as inducing extensive gangrene. I do not allude to those cases of acute inflammation, where of course ordinary antiphlogistic treatment will often procure resolution, but to the more chronic form of the disease as I have described it. Here our only alternative would seem to be to remove the cause; but this cause is most commonly a venereal ulcer, and here we are met by quite as sweeping a condemnation of the use of mercury, I know not on what grounds

Mr. Travers indeed holds it as an established rule of practice, not to administer mercury during inflammation in any cellular tissue, but I have yet to learn that such a rule obtains among American physicians. I should not expect however a chancre thus situated to improve much under any treatment, but from an operation I should hope better results. There is of course some risk of gangrene following the incisions, but there is at least the same risk in allowing the disease to go on unchecked, and in the latter case it would be much more apt to assume a malignant form, and spread extensively, and the gland the most important part concerned would be more liable to become involved. I think the operation usually performed of dividing the prepuce through its whole length, unnecessarily severe, for in many cases, perhaps in most, the contraction of the prepuce is simply at its orifice, and here a very small incision, just dividing the stricture, would allow the parts to resume their natural state. But whichever operation were required, I should hardly look to see it followed by such "irreparable mischief", as Mr. Saml. Cooper very forcibly describes. I should notice here

that in the Boston Med. & Surg. Journal for Nov. 22d of last year, there is an extract from a French Gazette, purporting to give the experience of a M. De Mignot with belladonna, which he says he has used in very numerous cases of phymosis, and always with great advantage, the article dilating the orifice precisely as it does that of the uterus when rigid. Now I have no doubt of this, that it has the same effect upon a phymosis that it has on an indurated os tincæ, but that, as far as I can learn from those who have used it in such cases, is none at all. The idea, founded on the specific action of belladonna in dilating the Iris, that it must therefore dilate all the sphincters seems to me purely fanciful, for were it true, we should meet with some troublesome cases of dilation of the sphincter ani, following the internal administration of this article. I should not therefore expect to derive any such benefit from it, though both belladonna and stramonium would often prove serviceable by relieving pain and irritability. Without going at all into the details of this affection, or its treatment I pass to the second division of my subject —

Natural Phymosis. Authors generally have passed over this in a few words, noticing it merely as a slight deformity, seldom requiring surgical interference, and disappearing with the growth of the child. The deformity is the same as in Accidental Phymosis, but in its first stage, and indeed the only one in which it can be considered as a distinct form of disease, it is uncomplicated with the ulcerations and various morbid growths attending the other. This affection in many cases certainly, gradually disappears as the patient advances towards puberty, but if not entirely removed at that time, the difficulty is then very prone to increase, and to assume the character of a true stricture, producing the same results as a stricture in any other part of the urinary canal. A case of the kind is related by Prof. Knight of this College, where the patient suffered under this disease for very many years without disclosing it, and when he was finally compelled to apply for relief, the orifice was found so small, that urine was passed with the greatest difficulty, and during micturition, the preputial cavity was distended, if I recollect aright, to the size

of the double fist. There was decisive proof of disease of the internal urinary organs, by which the constitution had become much impaired, and although at this time the patient was operated upon, it was too late to save his life. In such cases the surgeon would have little doubt as to the nature of the difficulty, but there are others where the phymosis would seem incapable of producing much trouble in any way, yet in which, I am persuaded, it does excite a serious & even fatal train of disease. The first case which drew my attention to this subject, is briefly this. Patrick Connor, an Irish child, aet. 11 months, was brought to the office of Dr. Jewett of this city, some time in last August with symptoms of general debility. His health had been uniformly good until about a month previous, when without any obvious cause it began to decline. The principal thing complained of by the mother was scantiness of urine. The Dr. placing his hand upon the bladder found it much distended, and upon farther examination discovered a natural Phimosis, presenting not a very small orifice, but looking somewhat irritable. Supposing this to obstruct the flow of urine

but not I believe anticipating any effect on the general health, he slit up the prepuce with a bistoury as well as he could, the parts being rather minute. This, however, was followed by so immediate and marked an improvement in the child, as to show an intimate connection between the slight local affection and the constitutional disturbance. But the operation was not thorough enough and after a time the orifice again contracted, and the same symptoms of general irritation returned with augmented severity. The Irish are not very submissive to surgery, and the parents were unwilling that any farther operation should be performed. Under these circumstances Dr. Lewett adopted a singular but tolerably successful expedient, directing the parents to excite erections of the penis daily, which gradually dilated the orifice, and the child continued to improve slowly, as long as I had any opportunity of watching his progress. This case proves but little, and would only have afforded me room for conjecture, had I not soon afterwards found another, which at once confirmed and explained it. This was stated by Dr. Golding Bird before the Medical Society of London, and I give only an abstract

of it. W. D. a delicate, irritable looking child, æt. 3¼ years, was admitted under Dr. Bird's care at the Finsbury Dispensary, Aug 14th 1842, with the same general symptoms as in the case I have already described, but with one striking difference – there was here a copious diuresis. His health had been good till the May preceding, at which time his mother observed that every time he made water, he screamed from pain referred by him to the penis; it appeared to continue for about 15 minutes, and to be partially relieved by pressing the penis against the pubis. This increased so much that he avoided micturition as much as possible. He had been losing flesh ever since, was always feverish and thirsty, was constantly growing more fretful and irritable, and was unable or unwilling to walk. He presented so much the appearance of having stone in the bladder, that Dr. B. requested his colleague to sound him, which he did, but pronounced the bladder empty. The prepuce he remarks was long and tortuous, and had so filiform an aperture, that it was difficult to introduce the finest sound. He passed some urine at the time, which was pale and turbid, and looked

like mere milky water. On carefully manipulating the abdomen Dr. B. fancied he could distinguish the outline of an enlarged kidney, but this was made out with difficulty, on account of the child's fretfulness. From the date of his admission, till Jany 13th 1843, various remedies, among which were rhubarb, blue pill, Iron, Cubebs leeches to the perineum, Benzoic Acid, Bicarb. Potass., and Quinine, were prescribed unavailingly, with the exception perhaps of the last, which seemed to procure a temporary amelioration. In the mean while, Dr. Bird had become convinced, that the elongated prepuce, which scarcely presented a visible orifice, and was always red and inflamed, had some share in keeping up the pain in micturition, and determined to perform circumcision, which was accordingly done, on the last mentioned date, with marked benefit, the pain immediately disappearing and the little patient rapidly improving in health and strength. He regained the power of walking, and remained apparently well, though still passing urine of the same quantity and quality as before, until the ensuing April, when he was attacked with measles, which soon assumed the form of purpura, and termin-

ated fatally. A post mortem examination, made the day after death, revealed a most interesting condition of the internal organs. The bladder was about the size of an orange, much thickened, and as full of urine as it could hold. The ureters on both sides were dilated, the right being the largest, and of the size of one's forefinger. The pelvis of the right kidney was enlarged so as to hold a pint of water, and was distended with urine of the same character as that passed during life. The true renal structure appeared as a mere appendage to this pelvis, being thinly stretched over it. The left kidney had undergone a similar change, but to a much less degree. No other disease was found.

Dr. Bird in conclusion expressed his conviction, that the whole train of disease was excited by the contracted prepuce, interfering mechanically with the exit of urine, precisely as stricture of the urethra does in adults. Some discussion arose in the meeting but the majority fully concurred in his opinion. Mr. Hooper related a case as corroboratory, somewhat different in character but important in its bearings. The patient was an elderly lady, afflicted with prurigo or some similar irritation

about the meatus urinarius, which induced her to retain her urine for long periods, sometimes for 48 hours together, and after her death, the kidneys and ureters were found dilated precisely as in the boy. One important point in this case is, that there was the same inequality of distension, the pelvis of the right kidney being the largest, a fact considered by some of the members, as militating against Dr. Bird's opinion, they holding that a dilatation, the result of mere obstruction, should have affected both alike. In another point of view this case elucidates the others - the retention here was entirely voluntary. I think there can be little doubt, that in each of these cases the external affection, slight as it was, really caused the extensive structural changes of the internal viscera. This is strongly shown by the relief following the operation in the two cases of phymosis, and still more satisfactorily in the first, by the return of the bad symptoms as the orifice again contracted. I must confess there is a difficulty here, in establishing the dependence of the constitutional irritation, on the disease of the urinary organs, for in Dr Fenwick's case, there was but slight evidence of the existence of

such disease; and Dr. Bird's patient recovered, and remained apparently well from Jany till April, though the kidneys must have been all the while much as they were found after death. Perhaps those organs, being constantly in a state of painful distension, acted as an irritant upon the nervous system, especially the ganglionic, obviated at once when the boy no longer dreaded micturition. At all events the chain of reasoning is too strong to be set aside because every fact is not perfectly explicable. I should hardly think however, with Dr. Bird, that the phymosis interfered mechanically to any great extent with micturition, but rather that the pain attending the passage of urine, induced the patient, as in the case stated by Mr. Hooper, voluntarily to retain it. And this will not seem an inadequate cause, when we consider how far, the most important organs of the body may be altered, in shape, size, position, and even tissue, by habitual interference with their functions. The habit of constipation, is often carried to such an extent, that the enlarged intestines contain the accumulated faeces of many days or even weeks, without prefering inconvenience

The pressure exercised by tight lacing on the viscera within the thorax, often alters their position and structure to a degree almost incredible, unaccompanied as it is by any alarming symptoms pointing to the change so gradually progressing. And individual instances of similar alterations from the effects of pressure, made by tumors &c, are often revealed for the first time at post mortem examinations. No one can suppose these affections to be trivial, because so insidious; it is this very characteristic which should give us cause to dread them most, and to use all possible care for their prevention, for they will probably sooner or later exert a sinister, perhaps a fatal, influence on the general health. Therefore, it seems to me, that in every case of congenital phymosis, it would be better to perform the slight operation, which only is necessary for its removal, than to leave the child to the hazard of such ill consequences as I have described. That they may be produced by a voluntary retention of urine, and that this will, especially in children, sometimes follow a phymosis even, which does not interfere mechanically with micturition, I see no reason to doubt; and therefore I cannot suppose these results of the affection to be very uncommon.

I should also notice the fact, so amply established by the observations of Messrs. Acy Roux and others, that cancer of the penis is frequently connected with, and apparently dependent on, a natural phymosis. Mr. Acy found it thus in nine cases out of twelve, in which he amputated the penis for this disease, and Mr. Roux states 3 cases of the kind. This circumstance alone is argument enough in favor of circumcision. At all events, whenever the prepuce thus affected shows signs of irritation, an operation is certainly advisable and an entire removal, appears to me not only more effectual, but easier of performance, than a simple division of the part. It may be drawn through a slit in a plate of metal, or grasped by a pair of flat-bladed forceps, and the part external taken off with a knife or scissors indifferently. It is commonly said, that the integuments being more elastic than the mucous membrane, are very liable to be pulled so far down, that on their retraction they leave a broad raw surface. This of course is so, and yet in children a matter of small moment, for the whole operation is trivial - it is submitted to by whole nations, as a mere matter

of ceremony or convenience, and can hardly be taken into account at all, in the consideration of a serious disease.

As connected with this subject, I may mention the fact, that children suspected of having stone in the bladder, and in whom the prepuce is elongated, are sometimes unexpectedly cured by circumcision. The stone is supposed to be redissolved, but I think it more probable, that the disease is of the kind I have noticed. It is well known, that such a state of the kidneys and bladder is sometimes induced by stricture of the urethra, or enlargements of the prostate; probably also by much slighter diseases, but these are beyond the range of my subject. I may however deduce from these remarks, one general corollary with which I conclude That in all irritable affections of the urinary organs, the surgeon should bear in mind the possibility of such results as I have described, and should warn his patient of the danger; and, if he still finds him retaining his urine for unreasonable periods, should use the most energetic means for the removal of the irritation.

Wm. J. Whiting

XXII.

Dissertation on Moral Influence in the treatment of Disease.

By

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On the Importance of Moral Influences in the treatment of disease.

I do not commence this dissertation with very sanguine hopes of saying anything that is new, but my object will be attained by speaking, if not the whole truth, at least nothing but the truth. For I am conscious that one who has but just completed the studies preparatory to the profession of medicine, can speak with little confidence of things which he has as yet seen only "through a glass, darkly;" reflected from books, and lectures, and the other means of obtaining the light which may guide him as he first sets forth on his toilsome pilgrimage. Therefore I hope for indulgence if all that I may say, should not be in accordance with experience.

The connexion of the mind with the body, and the powerful influence which they exert upon each other in health, and especially in disease, have never escaped the notice of those who have made the phenomena of life and death their study. Ever since the event which "brought death into the world, and all our woe," man's body has never ceased to be swayed about by an infinite variety of mental influences, some affecting it for good, and others for evil. This has been the experience of every one; a fact whose truth is forced upon the attention from day to day, and which cannot but be noticed by

the least observing mind. It might be interesting, were it not foreign to our present purpose, to inquire whether many of the diseases with which man is at present afflicted, did not originate in the mind. To Adam in his state of innocence, the depressing passions were unknown. There was nothing in the wide universe for him to fear; perfect happiness left no room for grief; and no dark passions or corroding cares cast a gloom over his mind. But his unfortunate offspring became exposed to all these unhappy influences; and it may not be wholly absurd to suppose that these influences were the exciting causes of diseases which before had never been provoked to action.

In the early history of medicine, we find that the influence of the mind upon the body was known and turned to good account in the cure of diseases. Superstition for once was found useful. The temple of Esculapius was frequented by the sick in search of health, which they considered themselves certain of finding there, and which, therefore, many of them did find. It was in this temple, I believe, that every one who was thus restored to health deposited a model of the part which was diseased, in token of gratitude for the cure. This is the first approach to an anatomical museum of which we have any account. We find, indeed, that more importance was attached to supernatural powers in the cure of diseases, than to other remedies,

and that the method then considered the best, consisted almost entirely in acting on the body through the mind. It was certainly much easier to pronounce over the patient certain incantations and spells, than to administer skilfully more tangible remedies. The homœopathic practitioners at the present day seem to have approached this method of cure. At least they have almost discontinued the use of visible means, and we must suppose that they rely principally on some more ethereal power, as for instance the happy credulity, (may I not say superstition?) of their patients.

It will be unnecessary for me to pursue in detail the proof that this great fact of which I have been speaking, has been known to mankind in all countries and in all ages. We meet with continual allusions to it in many of the writings, both sacred and profane, which have come down to us, and no physiological fact seems to have been better known.

The different states in which the mind is placed, producing various effects on the body, may be divided into two kinds. viz., those states which arise from influences external both to the mind and to the body, and those which are produced by certain conditions of the body, acting on the mind, and this again reacting on the body. Of the first species we have numerous illustrations. Violent passions

or emotions will often produce wonderful effects in the cure of diseases. Dr. Abercrombie in his work on the intellectual powers mentions the case of a naval officer who for some months had been confined to his cabin, and unable to move from a violent attack of gout. The vessel in which he sailed took fire; and the news being brought to him, in a few minutes he was upon deck, and the most active man in the ship. A case is recorded of a paralytic man who recovered the use of his limbs during a violent paroxysm of anger. The imagination will often produce the specific effects of certain medicines. Persons have been put to sleep by imaginary (not homoeopathic) doses of opium, and others have been relieved by bread pills; and, in short, this noble faculty of the mind has, at various times, condescended to perform the office of a purge, an emetic, a narcotic, and a diuretic. I remember a curious case which I had upon the authority of a physician who was witness to the facts. A lady in the West Indies, being somewhat hypochondriac, fancied that she had the "liver complaint", and insisted that her medical attendant should put her upon a course of mercury. He refused to do this, as he believed that she was affected by no such disease. However, she persisted, and told him that if he would not prescribe the mercury, she would find some

other person who would be more accommodating). He then directed her to send to his house for some pills which he would prepare. They were prepared, and he took good care to put nothing into them stronger than bread. The patient commenced taking them, and the physician, calling two or three days afterwards, found that her gums were tender, and a day or two after that, he had the satisfaction of seeing her sitting with a large wash-bowl before her, spitting most energetically.

The cases I have given may serve to illustrate my first point, and in addition I will merely say that all the passions of the mind may be produced by causes external to the mind and body, and that each produces its peculiar effect, by whatever means it may be excited. — I will now consider briefly those conditions of the body which produce certain states of the mind, which again reacts on the body. Most diseases produce an effect of some kind upon the mind, these effects varying much in different diseases. Patients with affections of the lungs, (and this is true especially of those labouring under phthisis pulmonalis) are usually cheerful, and hope till the last, while persons with disease of the stomach & intestines are depressed in spirit, and sometimes are even reduced to despair. Dyspepsia occasionally produces monomania

of a whimsical kind. The vagaries of hypochondriacal patients have furnished abundant food for wonder and merriment to every one and the sufferers themselves. Persons affected in this manner seem at once to adopt a belief in the transmigration of bodies, and imagine themselves to be converted into various substances and forms. One supposes himself to be made of glass; and is very fearful of breaking. Another is converted into a clock, to which he bears no other resemblance than in having hands and a face. Pope has described these extravagancies with much humor.

"Unnumber'd throngs on every side are seen
Of bodies chang'd to various forms by spleen.
Here living tea-pots stand, one arm held out,
One bent; the handle this, and that the spout:
A pipkin there, like Homer's tripod, walks;
Here sighs a jar, and there a goose-pie talks.
Men prove with child, as powerful fancy works,
And maids, turn'd bottles, cry aloud for corks."

This disease is apt to prove very obstinate, for the patient has everything against him. First the disease itself from its nature has a depressing influence on the mind, and then the mind of course acts unfavorably upon the body, so that there is comparatively little chance of recovery until the patient's mind is diverted from the contemplation of his ailments, and subjected to more happy influences.

On the other hand, pulmonary consumption leads along its unwa-

victim with such a deceptive slowness, that he can scarcely be persuaded of his danger till he sees the grave opening beneath his feet. Here are no imaginary phantoms to harass the mind; no gloomy cast is darken the prospect: but [illegible] of returning health [illegible] the mind with joy. Certainly in the disease the powers of nature have the influence of the mind [illegible] in restoring the deranged functions of the body. It would seem as if nature, feeling her own weakness, had pressed this ally into her service to withstand the attacks of the mighty enemy. —

Disorders of the nervous system produce a dejection of the mind, and are often very obstinate on this account. I suppose it to be a general fact, that diseases have a more or less depressing influence on the mind according to the degree in which they affect the alimentary canal. The diseases of which I have just spoken, (dyspepsia and consumption) may perhaps be considered as the two extremes, between which there are many intermediate degrees. — The influence of Temperament on the state of the mind in disease is great, and worthy of an extended consideration. Similar causes, operating on persons of different temperaments, will produce very dissimilar effects. For instance, an accurrence, suppose a severe

of nature which will almost drive one person to despair, may produce in another a comparatively slight and transient depression and the cause of this difference may be found in their different temperaments. Persons in whom the bilious temperament predominates, are naturally of a grave character, and are more subject to diseases of the alimentary canal while those in whom the sanguine temperament is the most powerful, are liable to disorders of the vascular and respiratory system. These principles are very general, and will doubtless admit of many exceptions; but in medicine more than in any other science, the exceptions to general rules are numerous, and if the saying be true, that "the exception proves the rule", then many principles in medicine are certainly very fully proved.

The physician who forgets that his patient has a mind as well as a body, and treats him as he would a mere animal in similar circumstances, will sometimes find his remedies unaccountably fail in their object, and will look in every direction but the right one for the cause of the failure, and till he discover the truth of the matter, will frequently meet with similar disappointments. On the other hand; he, who, seeing the whole truth, observes disease in its two-fold aspect, will be doubly armed; for directing

his attention to the mind as well as to the body, he can give it a place as former subservient to his purposes. The mind is a good servant, but a bad master in sickness; and if the physician can make it his servant, the battle will be nearly won. But in order to this, he must have a thorough knowledge of the workings of the mind; he must know by what external signs its condition is manifested; what motives will produce the desired influence upon it, and what kind of influence in a given case, is required. This knowledge, however, cannot be gained from books, but is the result of experience and observation only. No man ever increased his practical knowledge of human nature by reading solely. Close observation, and the power of reasoning correctly, (and I may add, readily,) from facts, will give in this, as well as in other things, a facility in applying general truths to particular cases; and this constitutes the strength of the scientific physician.

It seems then, that one who should attempt to cure bodily disease without considering the powerful influence which the mind often has upon it, overlooks an element in his problem which cannot be omitted without bringing him

to an incorrect conclusion. For let one consider the various and continually changing states into which the mind is thrown by the passions and feelings which act upon it; how it is elevated by joy and hope, or depressed by grief and despair; how dependent it is, in respect to its comfort, upon influences which continually surround it; and then let the intimate connexion of the mind with the body be considered, how all these different states of the mind have their effect upon the body, weakening the power of disease, or uniting with it to aid in the work of destruction; let any one reflect on all this, and he will feel that medicines are to be applied to the mind as well as to the body, and that there should be a moral as well as a physical Materia Medica.

William Woodbridge.

XXIII.

Dissertation on Scarlatina.

By

Asa Curtis Woodward,

of Northfield, Connecticut,

Candidate for a License.

Scarlatina or Scarlet Fever

If there are diseases which are the same under every clime and in every constitution and requiring one and the same treatment the one under consideration must be an exception and the several Authors who have written on the subject and whose treatment is so widely at variance, perhaps in many respects are not unlike the viewers of the Chameleon and justly merit its rebuke. This disease say Eberle arises from a specific contagious miasm under the influence of certain occult atmospheric influences agreeing with the contagion of Small Pox and Measles destroying the susceptibility of the system to its subsequent morbific influence. To what extent this should be received is not for me to say. That it is contagious in the common acceptation of the term is that which I think daily observation goes to prove and which very few of the profession at the

present time do not admit whether the sus
ceptibility of the system to its influence is
destroyed as fully as in small pox and Measles
is yet perhaps to be decided

Whether the Disease can be carried in ~~and~~ clothes and the physician become a feeder of the virus spreading the mal ady he is expected to heal (which I believe is the opinion of some in the profession) be well founded or not I leave for those to say who can speak from experience

Three or more divisions have usually been made of this Disease: but on viewing the Symptoms I see nothing why it may not be considered as one varying in violence as do all other diseases whether contagious or not either from peculiarity of constitution locality prevailing diathesis or causes unknown — Symptoms are said to be Languor lassitude confusion of Ideas chills alternated by fits of heat Thirst hot Dry skin assuming a scarlet appearance nausea & vomiting soreness of the Throat with inflamation and ulceration sloughs of various hue ash colored or Black the breathing usually

frequent & Laborious but may be infrequent as in some cases of Typhus with a frequent pulse and Livid skin the blood not being properly aerated The healthy Equilibrium of the two being destroyed - The pulse may be full and strong and but little increased in frequency or frequent depressed and nearly obscure An eruption usually appears in from two to five days but there may be cases without it and the disease confined almost wholly to the mucous membrane The Eyes present an inflamed appearance an acrid discharge flows from the nostrils not unfrequently excoriating the part on which it falls The Tongue may be covered with a white fur or with a dark Brown or black crust or without fur or coating and present a red glossy appearance more or less swollen the breath is extremely foetid and should be most carefully avoided

No definite treatment can be prescribed each case having symptoms peculiar to itself and requiring medication on general principles believing that no one at the present time would be willing to follow indiscriminately Hamilton with his purgatives Norton and Armstrong with the Lancet or Brown with Stimulants although each may and should have their appropriate place. Mild cases require little or no medication gentle laxative and avoiding the extremes of heat and cold will perhaps be sufficient in more severe cases an emet of Ipicac may be given and the Bowels moved with blue pill should partial ~~partial~~ diaphoresis occur it may be encouraged by warm drinks Camphor ammonia and the body sponged with warm water should the pulse be full and strong with great pain in the head and the inflammatory symptoms running high Bleeding

may be necessary with cold or cool ablution or affusion the latter to be used whenever the heat is above the natural standard If there is a determination to the head it should be kept cool with cold water or infusion of wormwood made cold by the addition of ice ~~with~~ and mustard applied to the feet and ankles and the bowels be moved with calomel On the contrary should the patient be sinking under the disease with pulse feeble and frequent I would endeavor to rouse the system with irritants as mustard horseradish afterwards with friction and give Ether Tinct Cantharides capsicum with the inhalation of ammonia should reaction take place The following treatment will depend upon the degree of excitement produced and the symptoms then present The affection of the throat when present requires particular attention. Some have recommended Blisters but their ten

dency to gangrene is such they should be used with care perhaps irritants as volatile liniment or mustard might be used with advantage In children who cannot gargle the throat should be washed out with pepper tea Solut nitrate silver
Dispon muriatic acid or alum flung in with a syringe or applied with a swab should the Disease be putrid quinine or peruvian bark with stimulents in such quantities as may be required and in such form as best agrees with the patient Some cases may require Stimulents from the commencement. with this brief view I close believing that the causes Symptoms and Treatment of this Disease merit and might well fill a volume the product of some able pen one who could speak from experiance in all its forms with a mind undiased by any illustrious predecessor.

Asa Lentis Woodward

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